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THE WEST-LAND SERIES

THE
NEW PACIFIC
SCHOOL
GEOGRAPHY



HARR WAGNER

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THE NEW PACIFIC SCHOOL GEOGRAPHY.

BY

HARR WAGNER,

AUTHOR OF PACIFIC HISTORY STORIES, AND EDITOR OF THE WESTERN JOURNAL OF EDUCATION.

Westward the course of empire takes its way;
The first four acts already past,
A fifth shall close the drama with the day;
Time's noblest offspring is the last.

—BERKELEY.

OLYMPIA, WASHINGTON:
THE WESTLAND PUBLISHING COMPANY.

1900.

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PREFACE.

The Aim has been to make a complete one-book geography for the fifth, sixth, and seventh grades of the public schools. In arranging a course of study, therefore, the first years of school life may be devoted to nature-study, and the pupils of upper grades and of the high school may pursue the study of geography in a more scientific manner,—part with history, part with geology, part with civil government, and part with natural history.

Local Features. The child should know first about his own environment. A systematic study of a subject should be along the pupil's prospective commercial activity. A handful of soil from the child's playground is a pedagogical beginning for the study of geography. A large part of this book is therefore devoted to Washington and the New Pacific.

The Illustrations are made from photographs, many of which have been taken during the past year. Special attention has been given to pictures that illustrate the industrial features of the Greater West.

The Spelling. The author, with one or two exceptions, has followed the rulings of the United States Board on Geographic Names.

Other Features. While special emphasis has been placed upon the geography of Washington and the Pacific, there are few school geographies that contain so much definite information. The cablegram, telegram, and modern facilities of travel place all regions of the earth in quick communication with each other. This makes it necessary that the pupils in our public schools should have a precise knowledge of all parts of the world. The information is therefore made definite, so that the text may be a reference-book for the pupil's general reading.

A Live Text. The author has aimed to impart the idea of a living earth. The growth of plants, the growth of cities, the growth of nations, are represented. The building of valleys and the tearing down of mountains are illustrated. The book throbs with life. The pulse of the earth does not stop. Its ceaseless force is in the heart of nature.

Study and Reference Maps. The child is usually confused by having placed before him a large number of maps with an infinite amount of detail. The maps in this geography are to help the child, and they contain all that the child needs, unless a foreign trip is contemplated. In that case a trustworthy guide-book should be used.

Etymology of Geographical Names. The pupils and teachers will find instructive and interesting the meaning of geographical names.

Acknowledgments. The author wishes to express his gratitude to the Royal Geographical Society of London, to the United States Board on Geographic Names, to the American Geographical Society, to Mr. Fee of the Northern Pacific Railroad Company, to Mr. Alna L. Crane of the Union Engraving Company for expert work on maps, to Mr. D. R. Angsburg for the lesson on map-sketching, and to Mr. W. N. Allen for the article on the climate of Washington.

HARR WAGNER.

SAN FRANCISCO, CALIFORNIA, 1900.

SUGGESTIONS TO TEACHERS.

Field Work. This must be the basis of Primary Geography. It must be broader than the study of a creek, a river, a flower, an animal, or the building of continents in sand.

The sand table is an old device, but there is method in it. Close and accurate observation of the forms of the earth's surface and life is much better than the study of them in sand, clay, or papier-maché. Field work is nothing more, nothing less, than teaching the child to observe the life of his environment. The child must seek for truth in his own door-yard.

For illustration, in an outdoor lesson on the common birds of the neighborhood and school-yard, the children should observe the habits of food-getting, flight, song, nesting, perching, and swimming.

The older children should keep a note-book containing records of observations of birds. Accurate oral and written expression should be developed. A collection of the minerals of the neighborhood offers a most interesting and profitable field for outdoor work. Field excursions should be frequent. Distances and areas should be actually measured; elevations estimated; vegetation, animals, and soil should be noticed.

Pictures. It is important that the children should be taught to observe pictures, and to interpret them. The pictures in this book are an intrusion, unless they teach a lesson. This is an age of picture study. Each picture should teach something. The picture of the capitol at Washington is made large, not for the purpose of filling up space, but to make a definite impression on the mind of the child. You should ask such questions about this picture as to lead the child to compare its architecture with that of European buildings. The child will see a dozen pictures of Niagara Falls. In this text, it is Niagara by moonlight; in another text, it may be Niagara in midwinter. These changes of view mean something. It makes the picture live to the child. Whether a Millet, a Michael Angelo, or an amateur photographer makes a picture, it has its lesson.

Teachers should collect a large number of pictures from railroad folders, magazines, books, newspapers, and local photographers, and also art pictures published by various houses, that illustrate the work in geography.

Maps. The United States Geological Survey has published several hundred maps that are a great aid to the live teacher of geography.

These maps may be secured for from two cents to eighty cents. The new map of the United States, about six by nine feet, will be sent to any school district for eighty cents. The National Educational Association has especially recommended the use of governmental maps in schools. Full particulars may be obtained by addressing the Director, United States Geological Survey, Washington, D. C.

The American Bureau of Geography has been recently organized. The director is Edward M. Lehnerts, Winona, Minnesota.

The aim of the bureau is twofold: 1. To make available to each member the valuable geographical material in the possession of his fellow-members; and 2. To establish influences helpful to the teaching and the teacher of geography.

In accordance with this aim, the plan of work of the bureau includes,—1. Correspondence with educational men and women interested in geography, who desire improvement in its teaching; 2. The organization of a system of exchange in products, geographic photographs, etc. An illustration will make this clearer. Suppose a fellow-teacher in Washington desires illustrative material for his geography classes. On the lists furnished every member of the geographic bureau he finds the addresses of members in various states, territories, and foreign countries, and notes the material each offers for exchange. He then places himself in direct communication with those members who offer what he wishes to secure; and in the mean time, with the help of his pupils, he makes up local collections for the subsequent exchanges.

For the trifling expense of freight and postage every school can obtain a considerable collection of valuable illustrative material.

Structural Geography. Oral and printed descriptions of surface are not sufficient to give children a correct idea of forms. Relief maps, profiles, and pictures of relief maps may not give a correct idea of the various formations of the earth, but they are an aid. The slopes, mountain systems, hills, valleys, river basins, drainage, climate, soil, production, and history may be understood.

The construction of a globe is not only good manual training, but it is also good geography. Just as you should have the pupils draw, so you should have the pupils build and construct, even if the representation is not perfect.

Correlation of Nature Work. Dr. O. P. Jenkins, of Stanford University, has outlined a provisional course in nature study. The following extracts should serve as a basis for nature work in connection with geography:—

SEEDS. Dispersal. Arrangement in seed-case. Apparatus for dispersal. Collection of seeds to show method of dispersal.

Germination and growth in several forms of seeds. Conditions necessary for germination and growth. How the plant breaks out of the seed; how it gets out of the ground. Growth of roots; of leaves,—the one seeking food from earth, the others from air. Growth of roots from cuttings,—air-roots.

All the phenomena of plant life easily understood by the children of this grade.

ANTS. Life history and habits studied from a nest kept in the schoolroom, also by observations in the field.

POND LIFE. Jar aquaria, with some of the water insects; life, habits, motions, etc.

COVERINGS OF ANIMALS. Feathers,—structure, form, uses; scales; hoofs; claws; fur of different animals. All to be seen as adapted to the conditions of the life of the different animals.

EVAPORATION. Liquids. Compare water, alcohol, gasoline, glycerine, molasses.

Show existence of vapor by use of ether, alcohol, chloroform.

Show that heat is used up during evaporation.

Evaporation of solids, such as camphor and iodine.

Condensation.

Show sources of vapor of water by condensation from breath, surface of skin, under surface of leaf, etc.

Distill water from a flask.

SOLUTION. Solution of various common substances that will readily dissolve in water, such as salt; those that will not dissolve readily, as camphor, potassium bichromate, copper sulphate, and the like; those that do not dissolve perceptibly, such as whiting, starch, etc.

Evaporation of water to regain substance, formation of crystals, in part.

Use of funnel and filter-paper to show dissolved substances.

Application of these phenomena to fogs, clouds, snow, rain, formation of soils, erosion, etc.

DIFFUSION OF GASES.

STUDY of the candle flame. Parts of the flame.

How the flame is produced.

Use of different material for producing flame.

ILLUMINATING GAS. Preparation of gas in the schoolroom.

Process of burning in coal and wood.

Preparation of gas for use in city.

Visit to gas-works.

FRUITS. Use of edible parts.

Change in fruit by cultivation and selection.

Structure of the fruit, its parts, their arrangement in reference to each other.

How green fruit becomes ripe.

Digestion of starch in the human body.

Use of sugar in plant life; in animal life.

AIDS IN TEACHING GEOGRAPHY.

FOR TEACHERS.

KING: Methods and Aids in Geography.

PARKER: How to Study Geography.

G. STANLEY HALL: Story of a Sand Pile.

FRYE: Brooks and Brook Basins.

FRYE: Geography, with Sand Modeling.

Report of Committee of Ten.

Report of Committee of Fifteen.

The National Geographic Magazine.

The Journal of School Geography.

SHALER: Story of Our Continent.

O. P. JENKINS and VERNON KELLOGG: Lessons in Nature Study.

BASHFORD: Nature Stories of the Northwest.

WAGNER: Pacific Nature Stories (Includes Story of the Salmon, by President David Starr Jordan.)

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THE NEW PACIFIC SCHOOL GEOGRAPHY.



Our Side of the Earth.

THE STORY OF GEOGRAPHY.

A READING LESSON.

The Earth is a workshop. The Sun is the great master. There extends from it to the earth so much of light and heat, that water, air, and soil are ever full of life. The story of this life is more charming than the doings of a fairy prince. Have you ever asked yourself about the big, round sun as it came up in the east? Have you watched the approach of the golden light as it climbed in and out among the trees, and erept along the ground, chasing the dewdrops, and the shadows of darkness? Hail to the morning light!

The story of how the sun changes water into vapor and lifts it into the air, to descend again in the form of rain or snow, is full of interest. The sun sets the air in motion, thus creating the winds which give rise to the waves that roll over the deep ocean, and beat against the shores with such force as to ever make changes. The great Sun, with heat and light as its ready helpers, has written the whole history of the earth.

Geography is a description of the earth. It is more than a description of things that are lifeless, for it tells about the running brook, the playful child, the roaring sea, the

smoking mountain, the growling tiger, the singing bird, the great cities, the little farm, the great redwoods, the pretty flowers, the puffing train, the sailing ship, the fertile fields, the silent desert.

The earth is not lifeless. It is nature's workshop. There is no idleness here. The toil is ceaseless. If you watch a raindrop as it strikes the ground, you will see that it has a work to do. The building up or tearing down of hills, of river banks, of islands, of capes, of harbors, of valleys and mountains, is now going on. Take a close look at the school-grounds after a great rain-storm, and you will see the soil has not been idle. When you go to the seashore, watch the waves as they battle with the land.

Geography, then, is the wonderful story of the life of the earth.

QUESTIONS.

Is the earth full of life? How does the sun affect the earth? What is geography?

Composition Work. Write a composition of ten or more sentences, describing some of the things you saw on your way to school, that are suggested in this lesson.



THE STORY OF THE LAND AND WATER.

Some children may not have seen real mountains, valleys, peninsulas, rivers, and other forms of land and water. Each child should study the above picture of a number of forms.

A **MOUNTAIN** is a mass of land much higher than the other land in the same region.

A **MOUNTAIN RANGE** is a line or row of mountains.

A **MOUNTAIN SYSTEM** is formed by several ranges united by high lands.

HILLS are not so large nor so high as mountains.

VALLEYS are formed by the land between hills and mountains.

A **SLOPE** is the side of a hill or mountain.

A **BASE** is the foot of the slope of a mountain or hill.

A **BROOK** is a small, running stream of water.

A **RIVER** is a large, running stream of water.

THE SOURCE is where the river begins.

THE MOUTH is where the river empties into another body of water.

THE RIGHT BANK OR LEFT BANK of a river is the bank on the right hand or left hand as one goes down the stream.

THE BED OF A RIVER is the ground over which the water flows.

THE TRIBUTARIES are streams that run into other streams.

A **RIVER SYSTEM** is a large river with its tributaries.

A **RIVER BASIN** is the land drained by the river and its tributaries.

A **HARBOR** is a body of water in which ships can be anchored.

A **VOLCANO** is a mountain or hill from which steam, lava, and cinders are ejected; a burning mountain.

QUESTIONS.

What is a mountain? Where have you seen one? What is a mountain range? What is a mountain system? Describe a hill. What is a valley? What is a slope? Describe a brook; a river. Where is the source of a river? Where the mouth? Which is the left bank of a river? Which the right bank? What is the bed of a river? What is a river system? What is a river basin? Describe a harbor.

Field Work. Have your pupils study out of doors the various formations of the earth's surface.

Composition Work. Write a composition of twenty or more sentences, describing the various features named that you have seen.

THE STORY OF THE SOIL.

The upper part of the surface of the earth is called *soil*. It is that part of the ground that feeds the plants, the trees, and the flowers. In some parts of the earth the soil has been enriched by decayed vegetation. In other places, like the desert, the soil is so poor that nothing will grow. The condition of the soil of a region determines many things. When no water mixes with the soil, the desert exists; where there is too much water, swamps and marshes may be found. Where the soil is well watered by rain and rivers, dense forests, large plants, and fields of grain may be seen. The soil in valleys and on plains is usually much richer than that of slopes. As a rule, there are always more people, birds, and animals where the soil is good.

The rain mixes with the soil, and when the sun warms the earth, vegetation starts to grow. The water feeds the soil at the roots of the trees, and soon green leaves may be seen on the branches. Water makes the roots of the brown grass take on new life, and every blade turns a beautiful green. No matter how rich the soil, it would be worthless without water. In some parts of the country there are thousands of acres of land where the soil would produce large harvests if it could be watered. There is not sufficient rain, and the people build great dams and irrigating-ditches, and the barren plains made to become fertile fields.

Farmers plow in order to turn up fresh soil, and to loosen it so that the rain can sink more easily into the ground. A heavy rain, too, will sometimes carry the fine soil from the surface of slopes into the streams. The soil in the river is what makes it muddy.

Water is continually wearing away the earth, changing the slopes, river banks, and beds of streams. While water is doing this, however, nature is building up the soil again by the vegetation produced. The soil is formed by the water wearing away the rocks and mixing the particles with animal and vegetable matter.

Take a handful of soil from the field, school-yard, or the street, and examine it. We find it to be dirt that "soils" the hands. When we try to brush off the dirt, we notice a gritty feeling. This is due to bits of rock in the soil. Study the soil with the eye, and you may not see the tiny bits of rock; but rub it against a piece of glass, and the hard bits will scratch. Even fine, loamy and clay soils, when examined with a pocket-lens or microscope, will be found to be composed of tiny fragments of mineral or rock.

The stream grinds the soil from rocks, and carries its load onward until it fills the level land near its mouth, and makes it very fertile.

You may notice in the bottom of a creek pebbles that have been rounded and worn smooth, like those in the picture, by being rolled about, thus grinding off tiny bits, which go to build up the soil on the flood-plains. Thus

the deltas are formed, that you will read about, at the mouths of some of the great rivers of the world.

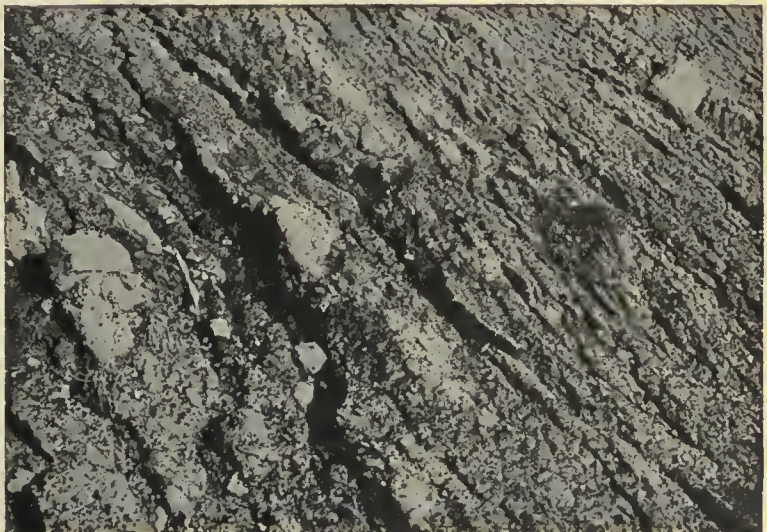


The bed of a stream at low water, revealing the rounded pebbles that have been worn and smoothed by being rolled about, thus grinding off tiny bits which later are built into the flood-plains.

Many of the most fertile lands are plains that have been flooded, and when the water receded, left rich layers of soil.

Sometimes scattered through the soil are pebbles and rocks different from the bed-rock of the country. The soil in a large part of our country is this way. Here is a picture showing pebbles and rocks in the soil.

This picture represents glacial soil. Agassiz, the scientist,



Near view of a cut in glacial soil, gullied by the rains, and with numerous transported pebbles imbedded in the rock flour.

says that a long time ago the rocks were carried to this soil by living glaciers. The glacier is a great icy desert. No



Map showing section of the United States that was once covered by ice, and glacial drift soil thus formed.

life of any kind exists. In North America it moved outward in all directions until it covered much of the continent. The map here shows how this ice-sheet covered the country. When the ice of the glacier melted away, it left only signs of its presence; but when the temperate-latitude plants grew in Greenland, they left seeds, leaves, and tree trunks, which have been imbedded in the rocks as fossils. One may now pick the leaves of temperate-climate trees from the rocks beneath a great ice-cap. Nevertheless, to one who studies them, the signs left by the glacier are as clear proof as the leaves and seeds. From these signs we know that the climate has changed slowly, but we have not yet learned why it changed.

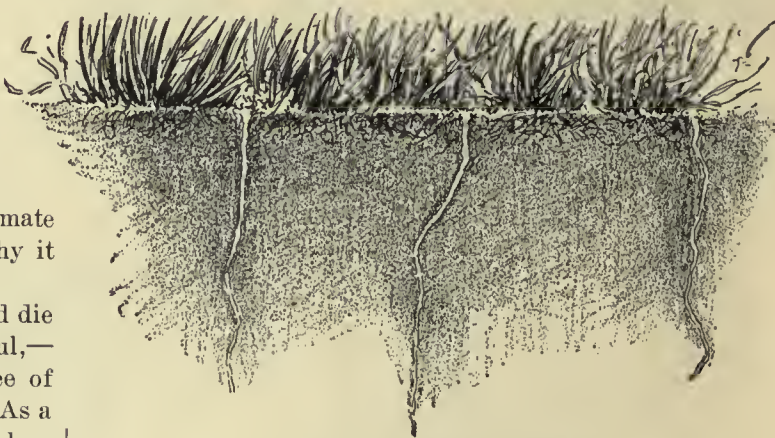
The soil has a wonderful story. Most people live and die without giving it a thought. It is, however, very useful,—

1. To hold plants in place;
2. To serve as a source of plant-food;
3. To act as a reservoir for moisture;
4. As a storehouse for plant-food.

Soil, in order to be of value, must have moisture and air. The woods furnish a good lesson. Here the leaves cover the soil and keep it moist, and wild flowers and weeds grow in abundance. The top soil must be left loose, or it will not produce. If you have a flower-pot in the school-room, you must not only water the soil, but the surface must be kept loose and mellow. A rake is oftentimes better than a watering-pot for a garden. In a field, the roots of clover extend into the soil like those shown in the picture. When the clover dies, the roots make the soil richer. The temperature of the soil has much to do with its productiveness. The temperature is affected by the quantity of water which it contains. Thus the soil is very slow to become warm in the spring, due to the fact that a large amount of water must be evaporated. A well-drained soil is thus much warmer. The atmosphere is much

quicker to respond to changes in temperature than is the soil. In the spring the air is warm and the soil cold, and the rains which fall at this time are warmed by passing through the warm air, and in sinking through the soil the water parts with some of its heat. Thus the soil is made warmer. In the summer, the hot soil is affected by the cooler rains, and existing soil

conditions made more favorable for plant growth. Thus soil temperature is somewhat regulated by the rainfall. A dark soil is warmer than light-colored soil. You will make the world richer by studying and learning to use the soil.



Clover roots extending into the soil.

QUESTIONS.

What is soil? What does it feed? Describe some things you have seen grow in the soil. Why is the soil of deserts worthless? Where are the most people? What starts the flowers to grow? Where there is not enough rain, how do farmers get enough water to make things grow? What makes the water in a river muddy? Have you ever taken up a handful of soil? What did you observe? Have you noticed the pebbles in the bed of streams? How is the land made fertile? Did you notice in the map how ice once covered part of our country, making a peculiar kind of soil? What are some of the uses of soil? Does some soil need air? Does it need moisture? Have you ever planted a flower in soil? Did you have to loosen the soil to make the plant grow? Have you ever looked at the roots of grass? When the roots of a plant die, is the soil richer or poorer?

Composition Work. Write a composition on soil as you have seen it in your yard.



A Tray of Pacific Coast Shells.

THE STORY OF THE WATER.

The water covers a large part of the earth's surface. It is everywhere. If you put some water in a shallow basin and set it in the sun, the water will change into vapor and float away in the air. Vapor also rises from ponds, lakes, brooks, rivers, and oceans. When the vapor cools enough, it forms the clouds. Fog is simply a cloud near the surface of the earth. When the vapor has changed into a cloud and some particles of water fall through the air to the ground, then it is rain. Hail is frozen rain. When the air is cold, the water freezes into crystals, or flakes of snow. Have you ever seen the treasures of the snow? The snow-flakes, if carefully examined, will be found to be very beautiful. Water sometimes freezes, and ice is formed. In the Arctic and Antarctic regions there is perpetual ice. If you will examine carefully, you

will notice that the top of the water freezes first. It is also interesting to notice how the water bubbles up from a spring. Sometimes the water spouts up in the air as high as a tree. This kind of a spring is called a geyser. The water is often boiling-hot, a proof that there must be great heat where the water comes from. People sometimes bore large, deep holes in the earth, and water spouts out in such quantities that it can be used to irrigate the land. Such wells are called "artesian," a name derived from Artois, in France, where these wells were first bored.

The rivers, brooks, and streams are all useful and interesting, but the greatest body of water is found in the oceans. About three fourths of all the surface of the earth is covered by water. The Pacific, the Atlantic, the Arctic, the Antarctic, and the Indian oceans, besides



Diagram Illustrating Rain and Snow Fall.

large bodies of water known as seas, bays, and lakes form the water surface of the earth. The ocean has always been



The Pathway of Commerce.

the pathway of commerce. It is full of life. Did you ever visit the sea-shore and watch the waves roll in? Of course

you have taken off your shoes and waded just as far out as you dared go. Did you notice how the waves washed up the seaweed? how they rolled back the pebbles and the sands? how the waves continually wear away the shores? In some places great caves have been washed out by the waves. There are very curious things in the bottom of the sea. In the picture you may see a tray of shells gathered from the ocean. The poet Holmes once wrote a beautiful poem on a shell, called "The Chambered Nautilus." Read it. The sea is five miles deep in some places. Sunlight does not go very far down in the sea, so that it is in darkness. Near the surface of the sea and on the bottom there are many kinds of fishes and other creatures. There are high mountains of the deep. Take away all the water, and the ocean bed would resemble very much the land surface. There is much of the land surface that was once covered with water. The water in the ocean is different from that in springs, rivers, and lakes. It is not agreeable to the taste, being both salt and bitter.

QUESTIONS.

If you put water in a basin and set it in the sun, what will happen? What is vapor? What is fog? Have you ever examined a snowflake? What is a geyser? What is an ocean? How much of the earth is covered by water? Do waves of the ocean wear away the land? Is the sea very deep? Name some of the creatures that live in sea. How does the water of the ocean taste?

Composition Work. Write a composition on water.

THE STORY OF THE WEATHER.

Man has conquered almost everything but the weather. Storms, cyclones, and sunshine come and go without his consent. Though he measures the wind, predicts the rain-storm, and knows the change of seasons, yet he cannot order rain or sunshine. But he has tried to conquer the weather. The first real step in this direction was the invention of the barometer¹ several centuries ago. The United States government employs upwards of two hundred people, and spends about one million dollars each year, in making observations of the weather.

We call the average weather or temperature of a country its climate. The temperature of a place depends mainly on four things: the sea, the mountains, the winds, and the nearness to the equator. The equator is under the path of the sun. The sun is the great heat-giver; so the hottest part of the earth is at or near the equator.

The air cools as the height above the sea-level increases. Hence the tops of high mountains are frequently covered with snow, even in hot countries. So when it is warm in the valleys, the top of Mount Rainier is covered with snow.

Winds which blow from the northeast and southeast toward the equator are called trade winds. Over the Indian Ocean the wind blows toward Asia in the summer, and tow-

ard Africa or Australia in the winter, and creates monsoons. Beyond the trade winds are variable winds extending nearly to the polar circles. The prevailing winds are from the west, northwest, or southeast. All these winds affect the climate.



Photograph of the Moon. Taken at the Lick Observatory.

The waters of the ocean have a general movement on the surface like the winds above them. The Japan current, that

¹ Every teacher should have a barometer in the schoolroom, and explain its use to the children. This is an important lesson.

crosses the Pacific Ocean from Japan to the western coast of North America, fills with moisture and warms the winds of Washington and other Pacific states. The Gulf Stream of the Atlantic does the same for the climate of western Europe.

The wind blowing over any sheet of water throws the surface into waves. Waves depend on the wind; so they are irregular. There is a movement of the water, however, that is very regular. The slow rise and fall of the sea is called the tide. The moon is much nearer the earth than the sun, and has the power to pull the water so as to cause high tide and low tide. At some places the tide rises as high as fifty feet. The winds affect only the surface of the water, but the moon causes the great tidal waves which make the powerful currents rush even to the bottom of the sea.

If you will take a bucket of water and a bucket of sand, and place them side by side in the sun, on the morning of

a hot day, at noon the sand will be much hotter than the water. Why? Because the earth takes in heat much faster than water. If you will let both buckets stand until midnight, the water will be warmer than the sand. Why? Because the sand throws out the heat it has taken in much faster than the water. It cools quicker.

QUESTIONS.

Have you ever seen a barometer? What is meant by climate? Where is the equator? Why are some places warmer than others? Why is there snow on the tops of high mountains? What is meant by trade winds? What are monsoons? Where are variable winds? Do currents in the ocean affect climate? Why is the coast air of Washington warm? Does sand get warm quicker than water if set in the sun?

Composition Work. Write a composition about the weather.

Suggestion to Teacher. Have pupils make a record of the weather each day. Use such terms as Cloudy, Fair, Rain, Stormy, Cold, Clear, Windy, Calm. Have a pupil write his record on the blackboard each day. If you have access to reports of the United States Weather Bureau, have them written by a pupil on the blackboard.

THE STORY OF THE EARTH.

The earth is round. For a long time people believed the earth was flat. Columbus, who discovered America, taught that it was round like a ball. Magellan started to sail

around the earth over four centuries ago, and his ship was the first to go around it. The map on this page shows the course Admiral Dewey took when he sailed around the earth. The other reasons why people believe the earth round are: 1. Ships sailing from port disappear, first the hull, then the lower part of the masts, and last of all, the top of the masts; 2. The shadow which the earth casts upon the moon in an eclipse is always round; 3. People have traveled around the world in one direction.

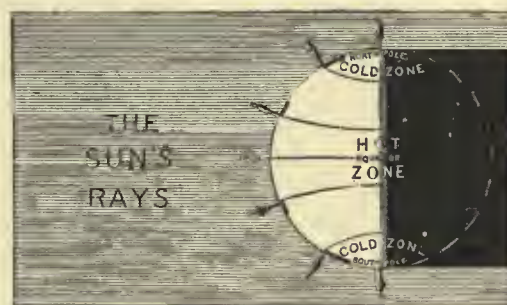
Size of the Earth. In form the earth is a great ball. The distance through it is about 8,000 miles. The distance around it is 25,000 miles.

Rotation of the Earth. The axis of the earth is an imaginary line through its center, on which it turns, making the revolution once in twenty-four hours. The ends of this



Around the World with Admiral Dewey.

SUGGESTION TO TEACHER.—Have pupils trace on the black line of the map the course Admiral Dewey took on his trip around the world, starting from San Francisco.



The Sun's Rays in the Different Zones.

axis are called the North Pole and the South Pole. North on the earth is towards the North Pole; south is towards the South Pole. Half-way between north and south, on the side where the sun rises, is east, and similarly on the side where the sun sets is west. North, south, east, and west are called the points of the compass. A direction half-way between north and east is northeast; between north and west, northwest; between south and east, southeast, etc.

Day and Night. A day means twenty-four hours. It also means the length of time that any place on the earth is

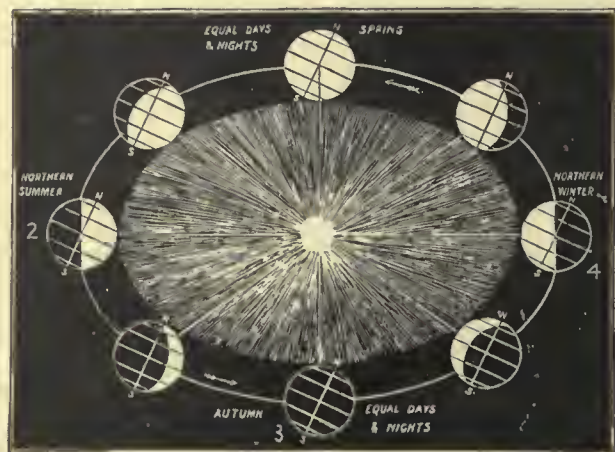
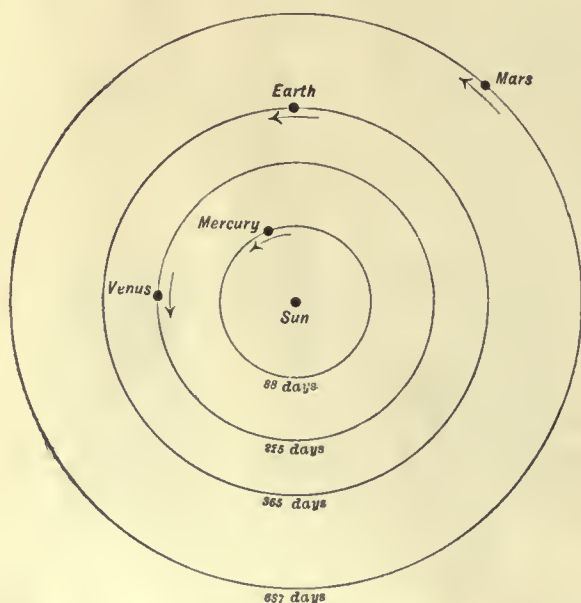


Diagram showing the Comparative Length of Day and Night in the Annual Movement of the Earth around the Sun.

in the sunlight. As the earth turns on its axis, one part of its surface is in the light, and the other part is in the shadow; hence we have night and day. If you use a globe, you can see a representation of the poles and of the equator, and many other interesting things.

The Earth and the Sun. We get most of our heat from the sun. The earth moves around the sun every 365 days. The sun is a great globe, more than a million times larger than the earth. The turning of the earth on its axis brings that part of the earth on which we live into the sun-



The Earth and other Planets moving in their Paths around the Sun.

light and darkness alternately. Thus we have light and darkness, or day and night. We say the sun rises in the east and sets in the west, but we must remember that it only seems so, for the sun is fixed, and the earth turns from west to east.

The Hemispheres. As the earth is a great ball, a globe, an apple, an orange, or a croquet-ball will best represent it. A globe cannot be made to represent the earth accurately, for the earth is not an exact sphere, being flattened a little at the poles. One half of the globe is called a hemisphere, or half a sphere. Here are two pictures of hemispheres; they are called the Western Hemisphere and the Eastern Hemisphere.

Parallels and Meridians. All maps, globes, and drawings have lines to aid us in describing and locating places, distances, etc. The circle passing through the earth



Diagram showing Axis, Meridians, Parallels, Etc.

midway between the poles is called the equator. The smaller circles parallel to the equator are called parallels. The half-circles which extend from the poles are called meridians. This word is from the Latin, and means mid-day. All places on a meridian have noon at the same time. The circumference of every circle has three hundred and sixty equal parts, which are called degrees. Thus the circle round the earth has three hundred and sixty parts or degrees.

Latitude and Longitude. Latitude is the distance north or south of the equator, measured in degrees. Thus we have north and south latitudes. Longitude is the distance, in degrees, between the meridians of any two places. Greenwich, near London, England, is where the prime ("prime" means first) meridian is located. The Royal Observatory is located there. In the United States, the meridian of Washington, which is seventy degrees west of Greenwich, is sometimes used.

Zones. The parallels that are twenty-three and a half degrees from the equator are called the tropics. The Tropic of Cancer is north of the equator, and the Tropic of Capricorn is south of the equator. The Arctic circle is twenty-three and a half degrees from the North Pole. The Antarctic circle is twenty-three and a half degrees from the South Pole. The Torrid Zone is a belt of the earth between the two tropics. Torrid means hot, and in this zone is the hottest part of the earth. Frigid means cold; so the zones that are near the poles are called the North Frigid Zone and the South Frigid Zone. Temperate is a word that means "neither hot nor cold"; so the zones that are between the Frigid and the Torrid zones are called the North Temperate and the South Temperate zones. It will aid you

to remember all this, if you will draw a globe and locate these poles, the equator, the parallels, the meridians, the tropics the polar circles, the zones.



The Arctic Region, showing Unexplored Territory.



The Antarctic Region, showing Unexplored Territory.

The Divisions of the Globe. The earth is divided into two hemispheres: the Eastern, known as the Old World, because civilized people have lived on it for thou-

sands of years. The Western Hemisphere is known as the New World, because it was not discovered until 1492.

The earth is divided again into six continents. The Eastern Hemisphere has within its borders Europe, Asia,



Map showing the Earth in its relation to the North Pole. The dark line shows the main water-shed.

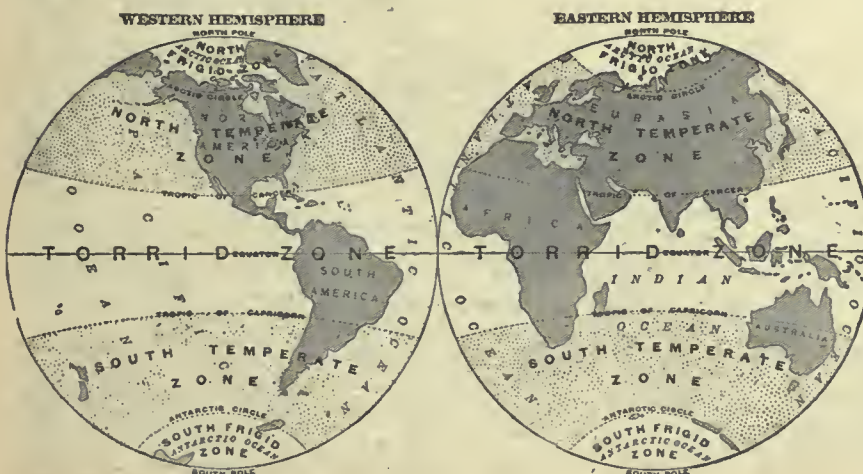
and Africa. The new geographies usually call Europe and Asia by the term "Eurasia," because they form a continuous body of land. The Western Hemisphere includes North and South America. The sixth continent is the New Pacific, called Oceania, or Polynesia. It includes Australia, the Philippines, and the islands of the Pacific.

QUESTIONS.

What is the shape of the earth? How do we know it is round? Who sailed around it recently? What is the size of the earth? What is the axis of the earth? Where is the North Pole? the South Pole? Show on a globe, ball, or map where the equator, the poles, the meridian lines, the zones, and the parallels are. Show the directions east, west, south, and north on the map. Show east, north, west, and south from the teacher's desk. Why is the earth in darkness part of the time? Why is it daylight? Describe the sun. Does the sun rise in the east? What is a hemisphere? How many hemispheres are there? Name them. What is meant by a meridian? How many parts are there in a circle? What is longitude? What is latitude? Show longitude and latitude on a map. Locate Greenwich on a map. Describe the Torrid Zone. What does "torrid" mean? What does "frigid" mean? What does "temperate" mean? How is the globe divided? On which hemisphere do we live? What is meant by the Old World? What is meant by the New World? Name the six continents.

Composition Work. Write a composition about the map of the earth.

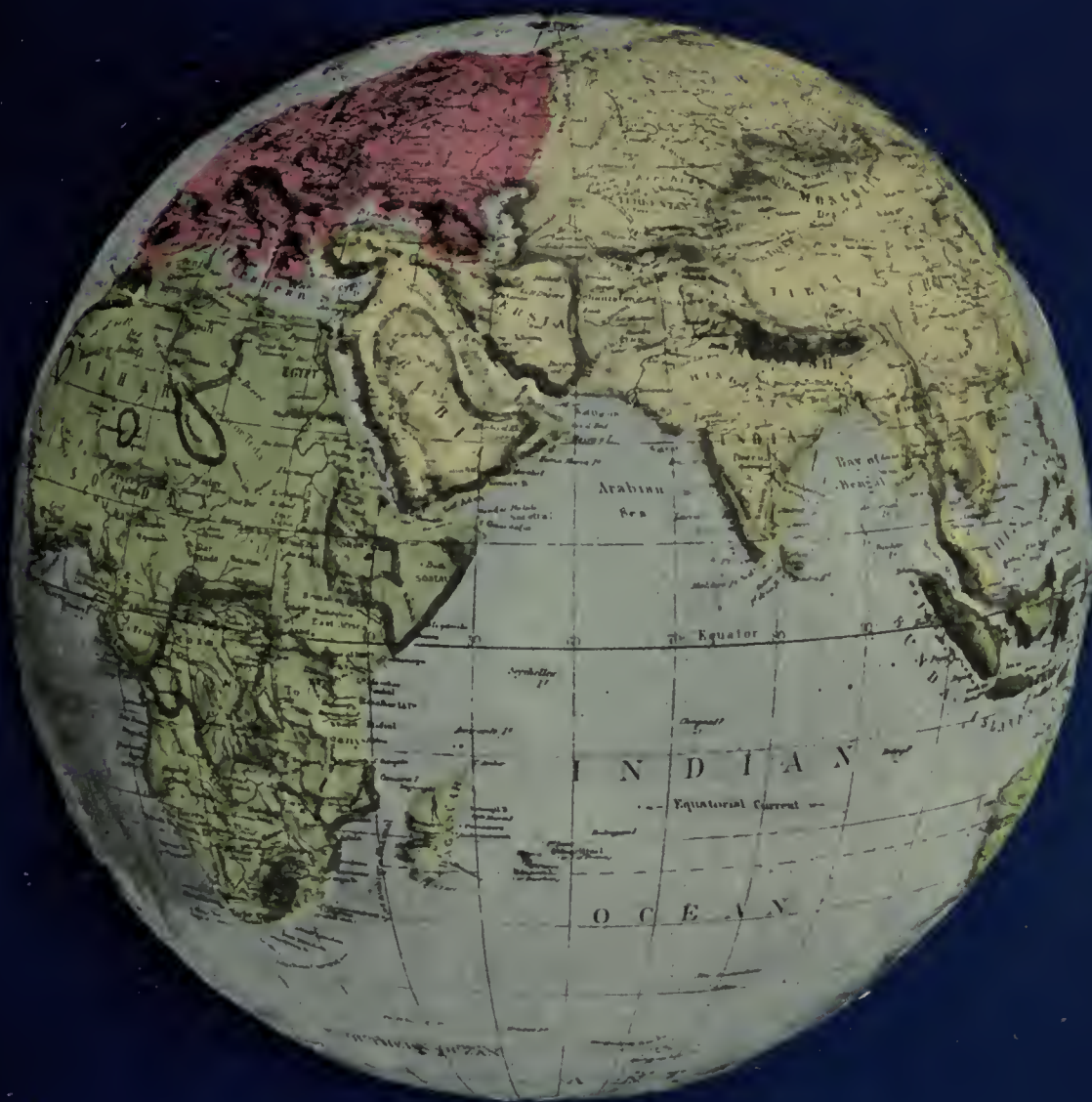
Suggestions to Teachers. It is absolutely essential that you use a globe. Even if you cannot get a good globe for the schoolhouse, buy a twenty-five cent one. If you cannot get even a cheap one, then draw one on the blackboard, and have each of the pupils manufacture a globe from clay, papier-maché, a croquet-ball, orange, or some other substance. It is no use to proceed with the study of geography unless the child has a fair understanding of these elementary principles.



Map of the Two Hemispheres, showing the Zones.



Relief Map, showing Mountains, River Systems, Oceans,
and Countries of the Western Hemisphere.



Relief Map, showing Mountains, River Systems, Oceans,
and Countries of the Eastern Hemisphere.

THE STORY OF LIFE.



trees of the temperate zone. They are deciduous trees,—that is, their leaves fall in autumn and come again in the spring. If you will examine the charts of vegetation, you will learn about the distribution of plants in all parts of the globe.

QUESTIONS.

Where is the most life found? Why does not vegetation grow near the poles? What is a desert? What is a forest? Where do the great forests grow? Name some of the trees that grow where the climate is warm. Name trees of the temperate climate.

Suggestions to Teacher. Ask questions in reference to location of plants on vegetation charts. Have children make a chart of the plants, trees, etc., that grow in their locality.

Prairies. The great plains of the United States, called prairies, the plains of northwestern Europe, called steppes, the plains of South America, called pampas, are rich in grass lands. They are too dry for large trees, but shrubs grow instead.

Story of the Animals. Animals are found in all parts of the globe. In the United States, wild animals are no longer as numerous as formerly. Wherever there are many people, the wild animals disappear. The horse, cow, dog, pig, sheep, and other domestic animals grow more plentiful.

Life is found in all parts of the world. There is, however, more life where there is good soil, and where the climate is pleasant.

Plants grow abundantly in good soil, and where there is plenty of moisture. The regions of the earth near the poles are too cold for much vegetation. In places where there is little heat, there is a dreary field of ice and snow. In places where there is but little rain, there is a dreary field of brown earth,—a desert.

Forests. Much of the land surface of the earth is covered with forests. The vegetation of the forest is very dense. Along the great rivers of the earth in the tropical regions there are great forests with immense trees. In the very warm and rainy countries, vegetation is always green. The thick undergrowth makes it almost impossible to travel. There are many trees here that do not grow where the climate is cold,—the bamboo, mangrove, mahogany, and rosewood. The pine, hemlock, and spruce grow in many places in our country, in the temperate zone. These trees bear cones, and have small, narrow leaves, which remain on the trees during the winter. The oak, ash, chestnut, walnut, maple, poplar, beech, and elm are among the most familiar



In the torrid zone there are many large and fierce animals, among them being the lion, leopard, tiger, elephant, rhinoceros, and hyena. Huge serpents, crocodiles, and alligators are also found. There are also monkeys, birds of beautiful plumage, and large insects.

In the temperate zones there are wolves and bears. There are at least seven kinds of bears. The birds, squirrels, and reptiles are smaller than those of the torrid zone.

In the frigid zones the animals have warm furs. The otter, beaver, seal, and walrus are well known. There are few domestic animals, the principal one being the reindeer.

QUESTIONS.

Name some of the wild animals of the torrid zone. What is said of the birds? Name some animals of the temperate zone. How many kinds of bears are there? What kind of animals are there in the frigid zone? Name them. Name the principal domestic animal.

Suggestion to Teacher. Have the children give you stories about animals they know, oral and written.

Story of the People.

You have no doubt seen people



The Indian or Red Race.

of each race of mankind. The negro is a black man; the Indian, a red man; the Chinese, a yellow man; the Malay, a brown man; and the Caucasian, a white man.

These races at one time belonged almost exclusively to certain parts of the world.

But railroads and steamships have distributed the races to all



William T. Harris, United States Commissioner of Education.

parts of the earth. In every city of any size, you may see the five different races. The principal home of the black race is in Africa. Their skin is black, lips thick, and hair black and woolly.

In eastern Asia and Japan the people of the Mongolian or yellow race live. They have a yellow skin and narrow, almond-shaped eyes. The brown race are known as Malays. They live in parts



The Lion.

of Asia, Madagascar, the East Indies, and in the islands of the Pacific Ocean.

The Indian or red race includes the Eskimos and American

Indians. It is a race that is gradually dying out. The skin is reddish-brown, and the hair coarse and straight.

The Caucasian or white race is the most powerful of all the races. About half the people in the world belong to this race. Europe, southwestern Asia, northern and southern Africa, North America,



The Chinese or Yellow Race.

South America, Australia, and many other parts of the globe are now inhabited by the white race. The white race is also gradually occupying more territory, and the other races less.

QUESTIONS.

How many races are there? Name them. Describe the black race. The brown race. The yellow race. The red race. The white race.

THE STORY OF PROGRESS.

The people who live by hunting, fishing, and gathering fruits and other edibles that grow without cultivation, are called savages. They have no fixed home, and live in caves, sheltered nooks, or rude huts.

The people who use animals for domestic purposes, till the soil, live according to the rule of the tribe, and wander from place to place, are called barbarians.

The people who have schools, pleasant homes, arts, sciences, manufactures, and comforts of life are said to be civilized.



The Negro or Black Race.



The Malay or Brown Race.

THE STORY OF OCCUPATIONS.

Pacific Coast Condor.

Civilized people have many occupations:—

1. Farming.
2. Raising horses, cattle, and sheep.
3. Mining.
4. Hunting and fishing.
5. Lumbering.
6. Manufacturing, such as making cloth, flour, sugar, shingles, books, hardware, drugs, etc.
7. Transportation, such as railroading, steamship lines, and staging.
8. Commerce.
9. Professional life; such as lawyers, doctors, ministers, school teachers.

THE STORY OF GOVERNMENT.

Until all men live as brothers, and follow the Golden Rule, laws to punish the wrong-doer and to protect the weak must exist. Rules are necessary in a large school; so laws are necessary in a community. A law is simply a rule which everybody must observe. If you break the law, punishment follows. Laws are not necessary with savage people, the chief being the law, but civilized communities have many laws, and officers to enforce them. A nation that elects its officers, law-makers, and president, is a republic. The United States, France, and many of the countries of South America are republics. A monarchy is a government under the control of a supreme ruler. The monarch who has no laws to limit his authority is an absolute monarch.



Interior View of Paper-mill, Everett, Washington.

Where the ruler's power is limited by law, then there exists a limited monarchy. Many of the countries of Europe are limited monarchies.

THE STORY OF RELIGION.

The Christian religion prevails in the leading nations of the world, Europe, America, and parts of Asia, Africa,

and South America, and the islands of the sea. The Catholic, Protestant, and the Greek Orthodox churches are the principal branches. The Christian religion has furnished to the world many of its finest buildings, and high examples of ideal manhood and womanhood. About one fourth of the human race professes Christianity.



The Twin Palms.

Buddhism teaches charity and kindness, and was founded before Christ, by Buddha. About one third of the human race professes this religion.

Brahmanism is preferred by the people of Southern Asia. It is a religion of castes.

Mohammedanism was founded by Mohammed, and their Scriptures are called the Koran. Northern Africa and southern Asia is the seat of this belief.

The Jews believe in one God, and the Old Testament is a record of their ancient religion and political history. The religion was proclaimed by Abraham over 4,000 years ago. The Jews are found in every civilized country.

The pagans belong to the most ignorant tribes. They worship idols of wood and stone.

QUESTIONS.

Define what is meant by savages. Who are the barbarians? What is meant by civilized people? Name some of the occupations of the people? What is meant by commerce? What is meant by professional life? What is meant by manufactures? What is meant by government? What is a republic? What is an absolute monarchy? Describe a limited monarchy. Describe the Christian religion. Define Mohammedanism. Define paganism. Tell what you can about the Jewish religion.

LOCAL AND STRUCTURAL GEOGRAPHY.

MAP-SKETCHING

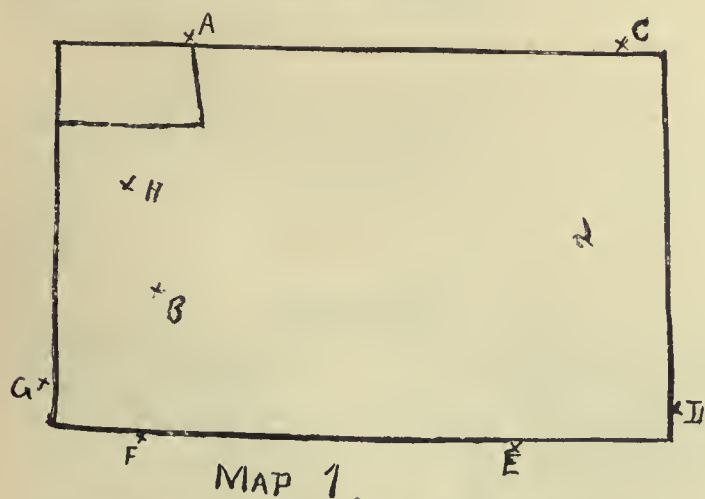
Direction. Have the pupil stand at the teacher's desk and point out north, south, east, and west in the schoolroom. Have them locate the same points from the school-yard and from their homes. Develop distance and area from the schoolroom and the school-yard. Drill the children until there is no uncertainty about the length of a mile; also, develop the correct idea of a square mile.

Field Work. This should begin with the study of a handful of soil, the observation of a brook, a river, a mountain, a valley, a hill, a lake, and all the various forms of a land surface in your school district. A lesson not found in books is often worth more than a whole chapter of the text-book.

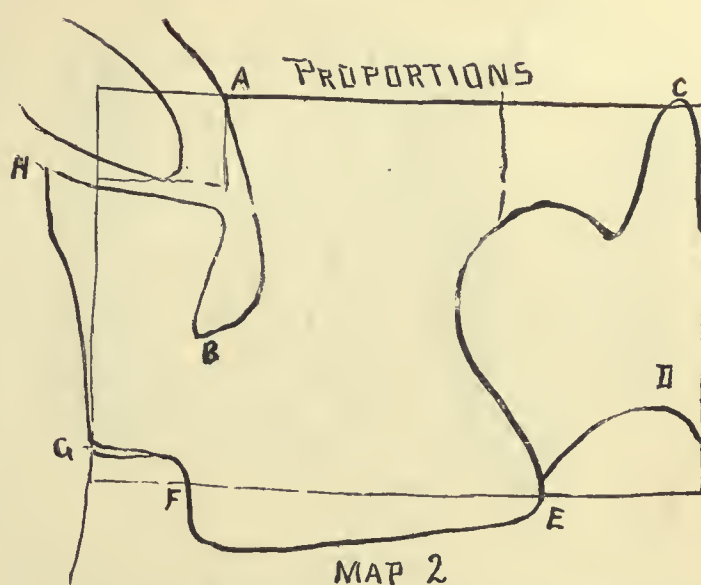
Relief Maps. The natural inclination of the child is to play in the soil around home. This play at school should have intelligent direction. Supervise the building, in the sand or clay of the school-ground, of the different forms of the earth's surface. A relief map of the school-grounds, showing a river, a lake, a mountain, or an island, will cause a child to do some intelligent thinking when it comes to studying the geography of the world. If you are fortunate, and have at or near your schoolhouse the form of the earth's surface, then field work will be more effective than the relief maps.

Outline for the Study of a County. 1. Boundary; 2. Mountains; 3. Rivers; 4. Lakes; 5. People; 6. Cities and towns; 7. Animals; 8. Plants; 9. Soils; 10. The weather; 11. Products; 12. Industries; 13. Commerce; 14. Government of the school district, the township, and the county.

The primary object of map-sketching is to gain a general knowledge of the map itself, its general proportions, its highlands and lowlands, its slopes and rivers. The placing of cities, products, railroads, mountains, etc., will naturally follow this knowledge. Exactness has no place in map-sketching. Great accuracy and close attention to details are fatal to the general grasp of the map as a whole. These must be sacrificed to the greater truth of general proportion. In fact, everything that tends to draw the mind from the map as a whole must be eliminated.



The one warning in map-sketching is, that we must not be drawn away from the central idea—the map itself—by details. We must not let the indentations of bays draw our mind from the general trend of the coast; we must not let little irregularities of the shore line make us lose sight of the general shape of the bay; we must not let the little crooks in the river draw our attention from the general direction



of the stream; we must not see the high mountains, and not the great trend of the slopes. We must see the whole before the part; we must work from the large to the small; from the mass to the detail.

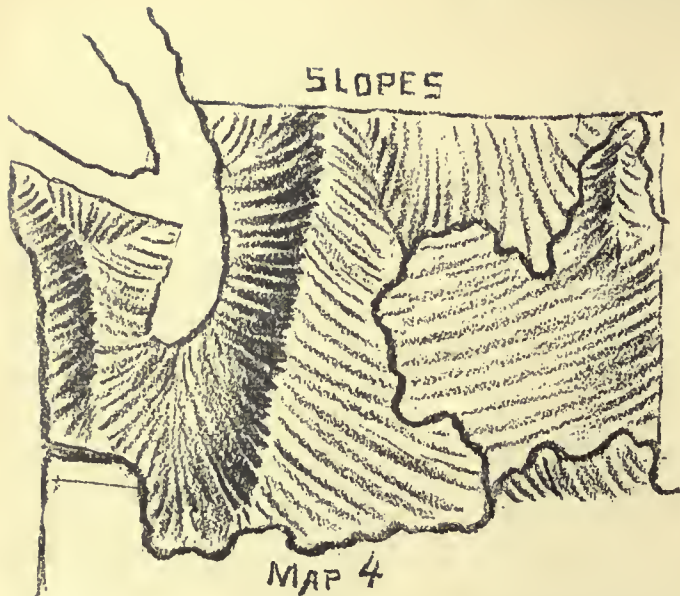
For example, the state of Washington in general shape is that of a rectangle, a little more than one and a half times longer than wide. (Map 1.) This is the most important point of all, because it relates to the state as a whole. The next in importance is the relative proportion of that part occupied by Puget Sound and its connecting waters. Choose the point A about one quarter of the side, and cut out a rectangle of about the same proportion as the whole state.



The lower point of the sound marked B is a little over half-way.

Locate the points C, D, E, F, G, and H.

Map 2 should be memorized the same as a piece of prose or poetry, and the process of memorizing is the same; viz., repetition. To memorize Map 2, draw it once, twice, or



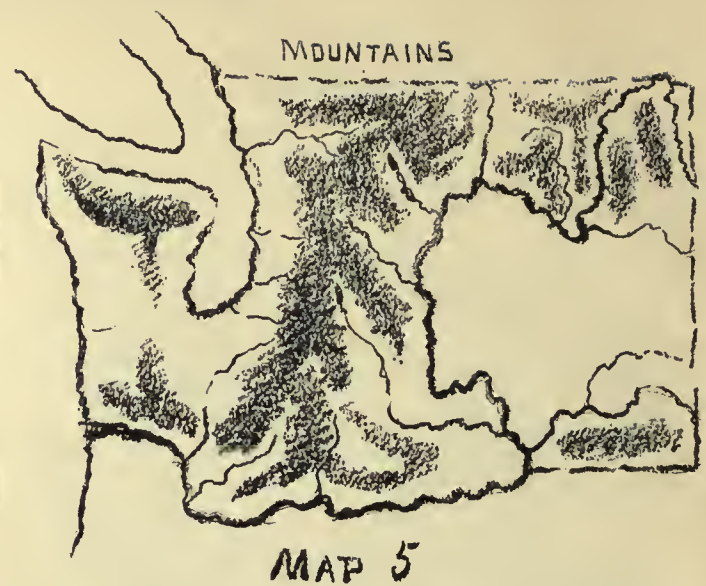
even three times, until the general proportions and leading points are learned. An average class can do this rapidly under the direction of one *who has already mastered it*.

Map 2 is the map to use for study, but if a more elaborate one is desired, Map 3 may be used. Map 3 will naturally follow Map 2. After the main proportions are established, the details very easily drop into place.

A sketch map is useless unless it is used. It should be used freely until the study of the country that is represented by it is well learned. Do not use an elaborate system to represent the mountain ranges. Simply use the side of the crayon if on the blackboard, or simply blacken with the end of a blunt pencil if on paper, as in Map 5.

It is not necessary to print names on maps. It is better to indicate by an arbitrary sign whatever is being studied.

Keep the map simple. Do not try to indicate more than one great truth at a time. Confusion will follow if care is not taken to follow this suggestion.



The following problems will explain how the map can be used in the daily exercise of the class. Either Maps 2 or 3 may be used.

MAP PROBLEMS.

1. Draw Map 2, and indicate the rivers. (See Map 3.)
2. Draw Map 2, and indicate the highlands and lowlands. (See Map 4.)
3. Draw Map 3, and indicate the principal mountain peaks and ranges. (See Map 5.)
4. Draw Map 3, and indicate the principal lakes.
5. Draw Map 3, and indicate the principal cities and railroads.
6. Draw Map 3, and indicate by dots the density of the population.
7. Draw Map 2, and indicate the annual rainfall by dark and light shading. The heavier the shade, the heavier the rainfall.
8. Draw Map 2, and indicate by shading with a red pencil where wheat is raised. Oats. Corn. Fruit.
9. Draw Map 2, and indicate by shading where the forests are found.
10. Draw Map 2, and indicate by shading where cattle are raised. Sheep.
11. Draw Map 2, and indicate with a blue pencil the fisheries.
12. Draw Map 2, and indicate by black shading where coal is found.
13. Draw Map 2, and indicate by a cross where gold and silver are found. Iron. Copper.

Suggestion to Teacher. The pupils must know, and know well, home geography before taking up Washington and the continents.



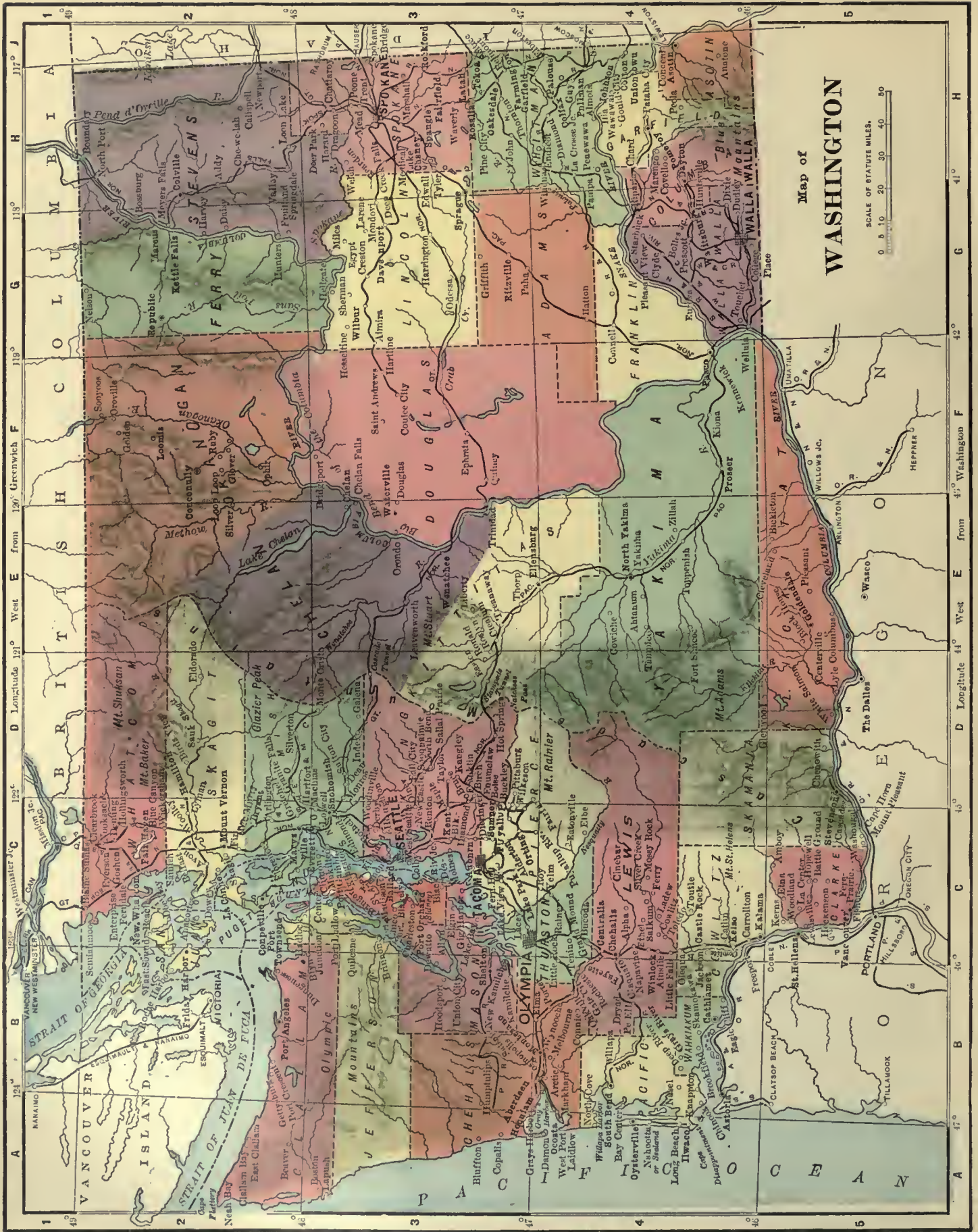
Rear View of the Agricultural College and School of Sciences, Pullman, Washington.

TOPICAL OUTLINE OF ELEMENTARY LESSONS, FOR TEACHERS' USE.

Direction	<ul style="list-style-type: none"> 1. North <ul style="list-style-type: none"> 1. Northeast. 2. Northwest. 2. South <ul style="list-style-type: none"> 3. Southeast. 4. Southwest. 3. East. 4. West. 	Climate	<ul style="list-style-type: none"> 1. Heat. 2. Moisture.
Guides to Direction	<ul style="list-style-type: none"> 1. Sun. 2. Compass. 	The Earth as a Whole	<ul style="list-style-type: none"> 1. Shape,—proof. 2. Size <ul style="list-style-type: none"> 1. Circumference. 2. Diameter. 3. Motions <ul style="list-style-type: none"> 1. Daily,— <i>how</i> <ul style="list-style-type: none"> 1. Day. 2. Night. 2. Yearly,— <i>how</i>,— Seasons. 4. Hemispheres <ul style="list-style-type: none"> 1. Eastern. 2. Western. 5. Globe <ul style="list-style-type: none"> 1. Parallels and Meridians. 2. Latitude and Longitude. 3. Zones.
Surface Forms	<ul style="list-style-type: none"> 1. Land <ul style="list-style-type: none"> 1. Slope. 2. Hill. 3. Mountain. 4. Mountain Range. 5. Mountain System. 6. Valley,— Basin. 7. Plain,— Plateau. 8. Island. 9. Peninsula. 10. Cape. 11. Isthmus. 2. Water <ul style="list-style-type: none"> 1. Lake. 2. River. 3. River System. 4. Gulf. 5. Strait. 6. Ocean. 	Life	<ul style="list-style-type: none"> 1. Animals. 2. People. 3. Progress. 4. Occupation. 5. Government. 6. Religion.
Soil	<ul style="list-style-type: none"> 1. How Made <ul style="list-style-type: none"> 1. Decayed Vegetation. 2. Sun and Rain. 3. Floods. 4. Glacial Soil. 2. Kinds of <ul style="list-style-type: none"> 1. Rich or Fertile. 2. Poor or Sterile. 3. The Uses of <ul style="list-style-type: none"> 1. Plant Food. 2. Reservoir for Moisture. 	Study of Distances	<ul style="list-style-type: none"> 1. Actual <ul style="list-style-type: none"> 1. Measuring. 2. Judging. 2. Arbitrary, Scale,— Computing.
		Map Reading for	<ul style="list-style-type: none"> 1. Direction. 2. Distance.

TOPICAL OUTLINE FOR THE STUDY OF WASHINGTON.

Home Geography	<ul style="list-style-type: none"> 1. Map of Schoolroom. 2. Map of School Yard. 3. Distances to Local Towns. 4. Soil, Slope, Mountain, Valley, River, Lake, etc. 5. Boundary of School District. 6. Boundary of County. 7. People, Cities, and Towns. 8. Animals, Plants, Soils, Products, Industries, Commerce, Weather, Government. 9. Map-sketching. 	The State	<ul style="list-style-type: none"> 1. History. 2. Boundaries. 3. Area. 4. Mountains. 5. Forests. 6. Lakes. 7. Rivers. 8. Climate. 9. Soil. 10. Products. 11. Industries. 12. Commerce. 13. Education. 14. Counties. 15. Cities. 16. Animal and Plant Life. 17. People.
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Map of
WASHINGTON

SCALE OF STATUTE MILES.
0 5 10 20 30 40 50

THE STORY OF WASHINGTON.



Seattle.

Washington is known as "the Evergreen State." It was admitted into the Union on November 11, 1889. The western boundary is the Pacific Ocean; the northern, British Columbia; the southern, Oregon; the eastern, Idaho. The longest distance, from east to west, is about 350 miles. The greatest distance, from north to south, is about 200 miles. Its area is 69,994 square miles. It contains 44,796,160 acres of land.

HISTORICAL NOTE.

About a hundred years after Columbus discovered America, Juan de Fuca sailed to the coast of Washington, and discovered the strait which now bears his name. In 1787, Captain Robert Gray, of Boston, sailed along the west coast and discovered the Columbia River, Grays Harbor, Willapa Harbor, and gave the United States a claim to all the northwest territory by right of discovery. In 1792, Captain Vancouver, the English navigator, sailed through the Strait of San Juan de Fuca, and named Puget Sound, Admiralty Inlet, Hoods Canal, and other places. In 1805-06, the two great students of geography—they studied from nature, not from books—Lewis and Clarke crossed the Rocky Mountains and descended the Clearwater, Snake, and Columbia rivers to the Pacific. They were sent to explore the country by Thomas Jefferson, then President of the United States. Then came some settlers, both English and American. The first permanent white settlement was made at Tumwater, near Olympia. Both Great Britain and the United States claimed the territory. Dr. Marcus Whitman, the noted missionary, made a famous midwinter ride from near where Walla Walla is now located, to

the national capital at Washington, to save the country to the Americans. In 1846 the boundary lines were established, and in 1853 the territory of Washington was formed. In 1889 a new star was added to the flag to represent the state of Washington.

Mountains. The Cascade Mountains cross the state north and south, a little west of the center. This range is of volcanic formation, and has a great influence on the soil, climate, and life of the state. There are several noted peaks in this range. Mount Rainier,¹ also called Mount Tacoma, according to recent measurements, is 14,526 feet high; Mount Adams, 12,470 feet; Mount Baker, 10,827 feet; and Mount St. Helens, 10,000 feet. The Cascade Range forms the great water-shed of the state. On the eastern side the rivers have their source in its snowy summits, and flow into the Columbia; and on the western side, the Puyallup, Nisqually, Chehalis, Cowlitz, Green, and Natehez have their

headwaters in the snow-fields of Mount Rainier. Near the Pacific Ocean is the Olympic Range. The average altitude is about 8,000 feet. These mountains are heavily timbered. All the mountain peaks of Washington are noted for their beauty. In 1897 the



Administration Building, University of Washington.

¹ DEPARTMENT OF THE INTERIOR, UNITED STATES GEOLOGICAL SURVEY, WASHINGTON, D.C., February 20, 1900.—The name "Rainier" has been adopted by the United States Board on Geographic Names for the volcanic peak in Washington, in preference to Tacoma, and is therefore used by all the government departments. HENRY GANNETT, Chairman.



Views of Mountain Peaks in Washington.

1. Mount Rainier, from Tacoma. 2. Top of Mount St. Helens, showing mouth of Columbia River, and clouds hanging over the ocean.
3. Tatoosh Range, from below Camp Muir, on Mount Rainier, showing Mount St. Helens in the distance. 4. Mount Adams, as seen from near Portland.

United States government established the Olympic forest reserve, of 2,188,800 acres; the Washington forest reserve, of 3,504,240 acres; the Mount Rainier forest reserve (including the Pacific reserve, created 1893), of 2,234,880 acres.¹

¹ The oldest rocks of the state, the age of which is yet to be determined, consist of granites, gneisses, schists, marbles, and other metamorphic rocks, forming the axis or backbone of the Cascade Range, and broadening sufficiently in the northern part of the state to extend practically from Mount Baker to the Idaho line. It is probable that the same series of rocks are to be found in the heart of the Olympics, but this matter must be authenticated. Upon the flanks of the rocks just mentioned, or in other words, forming the foothills of the Cascades and the Olympics, are great layers of sandstone, conglomerates, and shales, containing in their upper portions valuable seams of coal. These rocks belong to the Cretaceous age, and are, all told, many thousands of feet in thickness. Lying stratigraphically above the last-mentioned rocks, and extending outwards to the borders of the state, are the rocks which were the last to be made,—The Tertiary. These rocks show considerable diversity when followed from one portion of the state to another. About Puget Sound, and along the Pacific border, they are practically all sedimentary in origin, consisting of sandstones, conglomerates, and shales, and, like the Cretaceous, carrying valuable seams of coal. The Tertiary rocks of the southeastern part of Washington, however, are of igneous origin, and form the great lava plain of that portion of the state. This lava plain has an average thickness of two thousand feet, and is made up of layer upon layer of black basaltic lava.

The last event of prominence in the geological history of Washington was the formation of a giant glacier upon the summit of the Cascades. This, uniting with a similar glacier from the highlands of British Columbia, overspread a large portion of Washington. This glacier deposited about Puget Sound and elsewhere immense quantities of gravels, sands, and clays.—*Professor Henry Landes, University of Washington.*

Lakes. Lake Chelan is a large body of fresh water. It covers an area of sixty-five square miles. It is a picturesque lake, and is located north of the center of the state. Lake Washington, near Seattle, Lake Cushman, in the Olympic Mountains, Medicine Lake, near Spokane, and American Lake, near Tacoma, are some of the most noted lakes.

The River Systems. There are many rivers in Washington. The most noted is the Columbia, which enters the state not far from its eastern border, flows to the north, then west and south through a chain of lakes, receiving the Okanogan and other rivers. Below the town of Pasco it receives the Snake River. It then turns west and forms the southern boundary of the state to the Pacific Ocean. Both the Snake and the Columbia are navigable for river steamers. The Snohomish River, in western Washington, is navigable for a number of miles from its mouth. The Chehalis is navigable for twenty miles up from Grays Harbor. The Spokane River is noted for its beautiful falls.

Puget Sound. This is the most remarkable body of water on the west coast of America. It has a shore line of 1,992 miles. The main body of water is 117 miles long by 8 miles broad. It exerts a powerful influence on the rainfall and climate of the state, and forms an inland sea of great commercial capacity.



Illustrations of Industries of Eastern and Western Washington.

THE CLIMATE OF WASHINGTON.

General Conditions. It is said that "*for equability and mildness of climate, absence of either very hot or very cold waves, and freedom from destructive tornados or cyclones, Washington stands foremost among the favored states of the American Union.*" This equability of climate is due, first, to the influence of the ocean; second, to the direction of the prevailing winds; and third, to the relative position of the mountain ranges.

The Pacific Ocean and Puget Sound are great equalizers of temperature. Their tendency is to retard the upward or downward movement of the mercury in the thermometer.

For this reason water is sometimes placed near plants, on cold nights, to prevent their being injured by frost. Irrigating-ditches are often left open for the same purpose. The water imparts or gives to the surrounding air a part of its heat, which prevents it from becoming as cold as it otherwise would. In warm weather, lawns, walks, and streets are often sprinkled, not only to prevent dust, but also to keep the air from becoming very warm. The reason why the water keeps the air cool, or prevents it from becoming very warm, is, that the heat from the sun is occupied in evaporating the water,—that is, in drying the walks, streets, etc.,—and does not affect the air while doing so. It cannot do two things at the same time.

The larger the ocean or body of water that borders or enters a state, the less likely the climate is to change. The influence of northern latitude upon the climate of Washington is neutralized by the effect of the Pacific Ocean.

Over such a large area of water surface the climatic conditions are nearly constant. The air and water move with a regularity that overcomes all local or temporary variations. Especially is this true along the course of the Japan current. The climate of Washington, in this particular, only illustrates the general statement that *all states or countries that border upon large bodies of water have a more equable climate than those that are farther inland.*

The second reason why Washington has such a mild climate is due to the direction of the prevailing winds. They are from the ocean.

From about the middle of September to the middle of June, they are from the southwest. During the remainder of the year, they are from the northwest. Here, again, Washington is favored. Winds from the south or southwest are comparatively warm. They blow during the winter season. The northwest winds are cool. They blow along the coast during the summer. This illustrates another law: *all winds from the southern points of the compass are comparatively warm winds, while those from the northern points are cold.*

The third fact that has to be considered is the relative direction of the mountain ranges to the course of the prevailing winds. The Cascade Range extends through the state from north to south. It divides it into two sections, which differ greatly in climatic conditions. This central range is paralleled by two others, one upon the eastern and the other upon the western border. Between these ranges there are two great basins, or valleys. In those great valleys the air settles, and is protected by the bordering mountains from outside disturbing influences.

These three conditions partly explain why the climate of Washington is so equable; why it is so free from violent storms, or great extremes of heat or cold. Nature has designed it so. It cannot well be otherwise.

Having stated in a general way the climatic conditions of the state at large, especially in reference to its position, topography, and surroundings, it remains now to note in detail the climate of each section, both east and west of the dividing mountains. In this will be considered separately the three primary factors in climate; viz., the *temperature*, the *humidity*, and the *movements* of the atmosphere.

I. THE CLIMATE OF EASTERN WASHINGTON.

The Columbia River basin slopes toward the south. The surface is undulating and somewhat sandy. The mountains upon the north, as well as those upon the east and west, protect it from outside influences. It is certainly well arranged and suitably inclined to receive the heat of the sun and to have a moderately equable climate.

1. Temperature. By the term "temperature" is meant the comparative amount of heat contained in the air. It varies with the seasons, and also with the time of day. The height of the land and the direction of the slope influence it somewhat. These facts will be applied as the conditions suggest. The mean annual temperature of eastern Washington is 48.25 degrees.

This is an average of the annual temperature of fourteen stations well distributed throughout the basin. Kennewick, which is situated near the confluence of the Yakima and Columbia rivers, has a mean annual temperature of 54.7 degrees,—the highest in the state. At Hunters, an elevated station in Stevens County, it is 41.2 degrees,—the lowest mean, not only in eastern Washington, but in the entire state.

It is interesting as well as instructive to know that it is this seasonal range of temperature that measures the life as well as the products of a country.

2. Winds. The movements of the atmosphere are called winds. They are caused by the difference in the temperatures of two places. The movement is always away from the colder and toward the warmer place.

Sometimes the air is forced to move otherwise, but it is not natural, any more than it would be for water to flow upwards.

Applying this general statement to the temperature conditions in eastern Washington, it should be expected that the general direction of the winds would be from the north toward the south. This is true, especially during the summer months. The winds are from the summits of the eastern and western mountain ranges, as well as from the north. During the winter, they are from the south and southwest. They are *forced* up the valley of the Columbia from the ocean.

The winds from the north or northeast are called the *Walla Walla* winds. They are cold, dry winds. The winds from the south or southwest are known as the *Chinook* winds. These are warm, moist winds from the ocean. Sometimes these two winds meet; then there are variable winds, usually, however, of short duration. The velocity of winds depends on the difference in temperature between two places. That difference or range is not great; therefore the winds are not violent nor destructive.

3. Rainfall. The annual rainfall in eastern Washington is 14.66 inches. This is the average of sixteen stations well distributed throughout the basin. This is much less than one half of the average annual rainfall of the state.

This fact is due to the peculiar physical features of Eastern Washington, as well as to the prevailing direction of the winds. There seems to be a gradual increase in the rainfall with the increase of latitude and altitude. That is to say, the driest section of the basin is in the lowest and most southern half. From this district, which is made up mostly of Yakima County, with the adjacent parts of the counties adjoining, the rainfall increases with the slope on either side, likewise toward the north.

The rainfall is much greater along the eastern than the western slope. To illustrate, Walla Walla is about the same distance east as Sunnyside is west of Kennewick, the station of least rainfall, but the rainfall at Walla Walla is 17.43 inches, or more than twice that at Sunnyside. The same fact may be further illustrated by comparing Fort Simcoe with Pomeroy, or Colfax and Pullman with Ellensburg. The explanation of these facts is found in the general law that the relative amount of moisture in the air increases as the temperature decreases, and the temperature decreases as latitude and altitude increase.

The reason why there is more rainfall east than west of the Columbia River is due to the fact that the prevailing winds are from the southwest. They come from the ocean heavily laden with moisture, and strike the mountains upon the eastern side.

II. THE CLIMATE OF WESTERN WASHINGTON.

The climate of this section is noted for its mildness. The position of the mountains, the nearness of the ocean, and the direction of the winds are its chief factors.

The mountains upon the north and east protect it from cold winds. Puget Sound enters from the north, and covers an area of about two thousand square miles. This great water surface has much to do in maintaining the equability of the climate. The prevailing winds are from the ocean, where the temperature does not vary much.

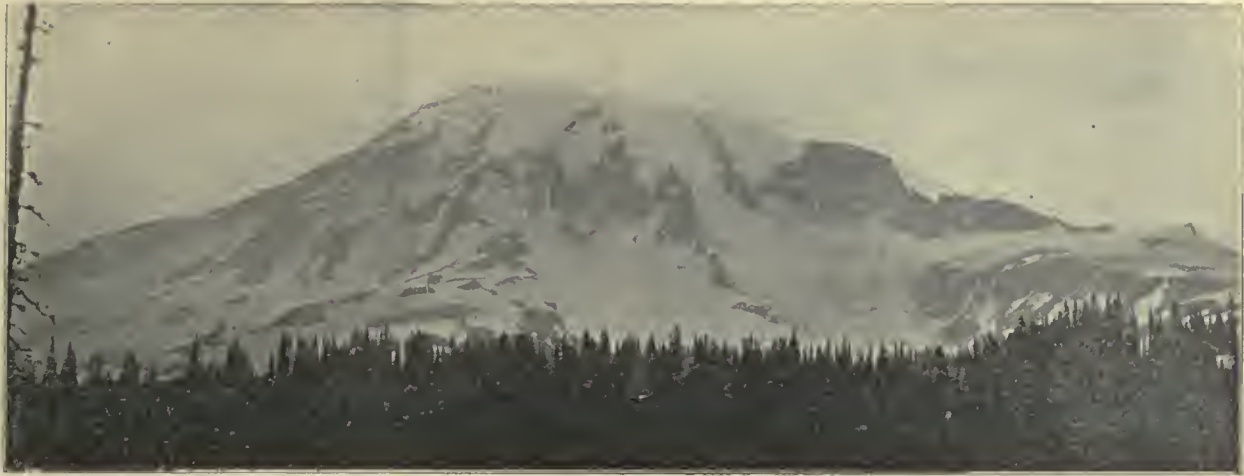
1. Temperature. The variation of heat, or the rising and falling of the mercury in the thermometer, is not as great west as it is east of the Cascades. The difference between the January and July temperatures is nearly twice as much in the eastern as in the western part of the state. The mean annual temperature of western Washington is a little more than 50 degrees.

The mean temperature for January, the coldest part of the year, is nearly 40 degrees, or about 8 degrees above freezing-point. This means that "Jack Frost" does not visit the Sound country often; that the streams are not obstructed by him. The grass and trees are always green, and the flowers bloom out-of-doors the year around. The mean temperature for July, the hottest month, is 61.7 degrees. This is not as warm as the room in which you study. See thermometer.

2. Winds. The winds of western Washington are quite constant. They are never violent. In countries where the rise and fall of the mercury is slight, the movements of the air are necessarily slow. This is particularly the case in the Puget Sound basin, where the daily and seasonal ranges are not great.

The prevailing winds in this section are from the ocean,—that is to say, they come from the southwest, west, and northwest. They are regular as the seasons. The southwest winds are warm and moist, and known as the *Chinooks*. During the summer months the winds are from the west and northwest. They are dry and cool, when compared with the southwest winds. Occasionally the northeast wind makes its way across the mountains into western Washington. This is seldom, however. It is never welcomed, unless it is by small boys, for it is cold and unpleasant. When it mingles with the warm, humid air of the Sound basin, it often causes snow, which seems to be out of place.

Besides the regular winds, there are, especially during the summer months, mountain and valley winds, land and sea breezes. These are, however, diurnal rather than annual, and confined to the mountains and coast.



Mount Rainier, from the South.

3. Rainfall. The third factor in the make-up of climate is moisture. All air contains more or less of it, in the form of vapor. The amount present depends largely upon local conditions, such as the nearness of large bodies of water, the direction of winds, mountains, ocean currents, character of surface, temperature, etc.

Western Washington is favored by most of these conditions, and therefore has an abundance of rainfall, especially during the winter season.

The annual average is 65.65 inches, or a little more than 5 inches per month. This, however, is never abrupt or violent in its descent. Nor is it so heavy or constant as to interfere with the every-day life and business of the people. Being so near the ocean, the atmosphere is always pure, springlike, and balmy. Another fact regarding the rain is, that it falls mostly during the nights. This is due to the fact that the relative amount of moisture increases with a decrease of the temperature. The temperature lowers and rises with the sun; besides, the nights in winter are long.

SUMMARY.

1. Washington has one of the most equable climates of any state in the Union.

2. The average annual temperature for the state is about 50 degrees.

3. The average annual rainfall for the entire state is about 40 inches. Of this amount, 14.6 inches fall east of the mountains, and 65.6 inches west of them.

4. The climate of Washington is healthful. Its surface varies in altitude from sea-level to 15,000 feet, and with it, its climate, from perpetual spring to continual winter.

Mineral Products. Gold, silver, and copper are found in many districts. Coal is found at Whatcom, Fairhaven, Issaquah, Renton, Franklin, Black Diamond, Carbonado, Wilkeson, and Roslyn. In 1898 there were 1,988,288 tons produced in the state of Washington.

Fine granite quarries have been opened near Spokane, and at other places in the Cascade Mountains. Excellent sandstone is found in the Puget Sound basin. Important quarries are at Tenino, Wilkeson, Fairhaven, and elsewhere.

Valuable clays are also found in the state, suitable for the manufacture of brick, pottery, terra-cotta, etc.

The Soil. Just as there are natural divisions of climate, so there are natural divisions of soil. The dense forests of western Washington have formed a rich soil. The decayed vegetation has enriched the soil each year. The forest trees have held the moisture, so that a rank undergrowth has sprung up. In the Swinomish flats, near La Conner, where the soil was once flooded by the tides, and where the farmers built dikes, the crops are very abundant. The mineral wealth and the lumber interests have largely attracted settlers, but the cultivation of the fertile soil of this region will soon be developed.

Much of the soil east of the Cascades is a volcanic ash. The winds blowing from the sea, passing across the active



Curious Formations near Cape Flattery.



Snoqualmie Falls.

volcanos of this region, carried the ashes beyond the mountains, and deposited them on the treeless surface. This soil produces abundant crops.¹

There is also a sandy loam in the river bottoms of the Yakima, the Walla Walla, and the Wenatchee. When these soils are irrigated, great crops are produced.

The Products. The great wheat belt of the state is in eastern Washington. The great timber belt of the state

¹Soils are usually divided into two general classes; the first being the "in situ" soils, or those formed in the place where they are found; the second are the "removed soils," or those which have been shifted from their original place of making. Of the "in situ" soils, the best examples in Washington are those of the great lava plains in the southeastern part of the state. These soils are of great depth, and because of their finely powdered character and proper chemical composition, are of great fertility. Among the removed soils we have those of that section of the state once covered by glaciers, as well as the soil of the broad river valleys, such as are common about the Sound. The glacial soils are, of course, a mixture of all the soils traversed by the glacier in its course. If they do not contain too large a percentage of coarse gravel and sand, they are quite productive. The alluvial soils of the river bottoms are of very fine grain, and, as all know, of great fertility. The United States Department of Agriculture has characterized the soils of the Skagit Valley as being the most fertile in the United States.—Professor Henry Landes, University of Washington.

is in western Washington.¹ The great mineral region is in northern Washington, from east to west. Hops of a superior quality are raised in many parts of the state. The food-fishes of the Puget Sound country furnish employment to thousands, and bring rich returns. All the fruits of the temperate zones are produced in abundance.

Industries. One of the chief industries is in the forests. There are over six hundred different plants in operation for the manufacture of lumber.² These mills manufacture shingles and lumber for ship-building, wharves, houses, furniture, etc. Lumber alone brings an income to the citizens of the state of over twelve million dollars annually.

¹The growth of Washington timber is remarkable in many ways. For one thing, it has single trees of extraordinary size. A King County tree recently cut measured nine feet in diameter at the butt, four feet eight inches at the top, was 186 feet long, and scaled 64,000 feet of clear lumber, without knot or blemish. From a cedar log twenty-two feet long, at Woolley, 73,000 five to two and one quarter eighteen-inch Perfection shingles were manufactured, worth upward of \$150.

The red fir is not infrequently 250 feet high, the pine 160 feet, the silver fir 150 feet, the black spruce 150 feet, white cedar 100 feet, and white oak 70 feet. Cedars have been found twenty-one feet in diameter and 120 feet high. Trees from six to eight feet in diameter are frequently seen in the forests of this region. Some of the logs sawed are of great girth, and sometimes 115 feet long. Estimates as to the amount of standing lumber in Washington vary all the way from 100,000,000,000 to 500,000,000,000 feet. The government has, during the year 1898, completed an investigation under an expert of twenty-five years' experience in this line of work, who places the standing timber in the eighteen counties west of the Cascades at 103,504,376,000 feet.

The Douglas fir not only stands at the head of the list in point of quantity, but it comes nearer filling all the requirements of the builder, the architect, and the railroad contractor than any other known wood. Where timber of large dimensions and freedom from blemish is required, it is in demand all over the world.

Tests made by the division of forestry, United States Department of Agriculture, on various species of cone-bearing trees, established the superiority of Douglas fir to all others.

²The Bellingham Bay Improvement Company, of New Whateam, Washington, operates a saw-mill on Bellingham Bay. The mill has a capacity of 30,000 feet of lumber per hour, or 720,000 feet per day. The mill employs 150 men within the building, besides more than as many more in the yards and camps. The timber cut is fir, spruce, and cedar. The logs are brought in for about thirty miles on the company's private railroad. The company owns several four-mast ocean schooners, which carry the lumber to ports in America, South America, Europe, and Africa.



The Source of the Snoqualmie River.

The source of income from the fisheries is over six million dollars annually. The state and Federal governments have established hatcheries, where salmon are hatched, and put into streams. Millions of dollars have been expended for new and improved machinery for canning salmon.¹ Coal, gold, silver, copper, and other mineral deposits are mined successfully. Spokane is a great mining center. The products of the farm include wheat, hops, hay, oats, etc., and the total income is about twenty million dollars annually. There are over 119 creameries, thirty-two cheese factories, a condensed milk factory, and a beet-sugar factory in the state. The people are also engaged in the manufacture of leather, flour, paper, books, and of nearly everything required for use by the citizens.

Commerce. The advantages of great railroads that extend across the continent, and splendid harbors that offer an open gateway to the trade of the world, are among the commercial features. Seattle and Tacoma have a commanding place in the commerce of the new Pacific. These cities on Puget Sound are the nearest American ports to Alaska, the great empire of the north. They are also the nearest American ports to Vladivostok, the terminus of the Trans-Siberian railroad. The exports and

imports will place these cities in rank with the great ports of the world. Puget Sound is a vast, deep inland sea, and forms



¹ The Pacific American Fisheries Company is the largest plant for canning fish in the world. It is located at Fairhaven, Washington. It employs 3,500 men during the busy season, from June to October. The plant has a capacity of 14,000 cases daily, or a total of 672,000 cans daily. During the season of 1899, the plant used 3,125,000 fish, each fish weighing from four to sixty pounds. The fish are caught in Puget Sound and Alaskan waters. The output is sold in Eastern markets, in Europe, and in the Orient. The fish are put up in cans, are smoked, pickled, dried, and salted. Each method has several different grades, so the company really prepares fish in thirty-seven different ways for the market. The main building in Fairhaven is 300 by 380 feet in size. The company also works an oil-plant, a fertilizing-plant, an ice-plant, and a cold-storage plant in connection with its cannery. The kind of fish used are the salmon, halibut, herring, cod, sturgeon, smelt, principally. They also ship large quantities of fresh fish, frozen in ice, to all parts of the United States. The company owns about forty large traps, and buys the fish of many private traps. They also own many large scows, tugs, pile-drivers, and several small vessels that rank above tugs. A good trap is worth as much as \$40,000, and the total value of the plant is probably about \$2,000,000.



Chehalis.

a fine harbor for the ships of the world. From Tacoma, coal, lumber, and wheat are shipped to other lands, and great ocean steamers bring tea and other products of the Orient to our shores. From Bellingham Bay, lumber, canned salmon, and coal are shipped to many ports. From Everett, shingles, lumber, and paper are sent to other cities. From Seattle, wheat, flour, coal, lumber, canned salmon, and merchandise of every description are sent to Alaska, to Asiatic and European cities, Coast ports, and interior towns. The commerce of these cities is rapidly increasing.

Education. Washington has an excellent public school system. The schools are under the control of a superintendent of public instruction, a state board of education, and county superintendents. Each school district is governed by a local board of directors. The State University has a picturesque location in the suburbs of Seattle. The State Agricultural College and School of Sciences are located at Pullman. Excellent state normal schools are located at Ellensburg, Cheney, and New Whatcom. The state also maintains a number of benevolent and reformatory institutions. There are numerous private schools and colleges, which are well supported.



Exterior Views of Paper Mills at Everett.

Divisions. The state is divided into thirty-six counties, as follows:—

Name.	County Seat.	Name.	County Seat.
1. Adams.	Ritzville.	19. Lewis.	Chehalis.
2. Asotin.	Asotin.	20. Lincoln.	Davenport.
3. Chelan.	Wenatchee.	21. Mason.	Shelton.
4. Chehalis.	Montesano.	22. Okanogan.	Conconully.
5. Clallam.	Port Angeles.	23. Pacific.	South Bend.
6. Clarke.	Vancouver.	24. Pierce.	Tacoma.
7. Columbia.	Dayton.	25. San Juan.	Friday Harbor.
8. Cowlitz.	Kalama.	26. Skagit.	Mount Vernon.
9. Douglas.	Waterville.	27. Skamania.	Cascades.
10. Ferry.	Republic.	28. Snohomish.	Everett.
11. Franklin.	Paseo.	29. Spokane.	Spokane.
12. Garfield.	Pomeroy.	30. Stevens.	Colville.
13. Island.	Coupeville.	31. Thurston.	Olympia.
14. Jefferson.	Port Townsend.	32. Wahkiakum.	Cathlamet.
15. King.	Seattle.	33. Walla Walla.	Walla Walla.
16. Kitsap.	Sidney.	34. Whateom.	New Whateom.
17. Kittitas.	Ellensburg.	35. Whitman.	Colfax.
18. Klickitat.	Goldendale.	36. Yakima.	North Yakima.

Olympia, the capital of the state, and the county seat of Thurston County, is well situated at the head of Puget Sound. Steamers connect it with Tacoma, Seattle, and other ports. It has railroad connections, also. The court-house is one of the finest in the Northwest. The educational advantages are excellent.



Lumber Mills.

Seattle, during the last few years, has leaped into commercial importance. It is the largest city in the Northwest. Three transcontinental railways enter its limits. Its ocean commerce consists of several Oriental steamship lines, and a fleet of vessels engaged in traffic with Alaskan ports, besides many steamers which ply between its wharves and various other Sound and coastwise ports. Seattle has many manufacturing establishments. The exports of coal, wheat, and lumber are enormous. Seattle is also the chief shipping-point for the great salmon industries. Its location is picturesque, and there are many beautiful residences, as well as several attractive parks. It has a number of fine public school buildings, including the buildings of the State University, located in the suburbs. The important naval station at Port Orchard, the Public Library, the Museum of the University of Washington, the Assay-Office,



Hop Fields.



Salmon Fisheries.

Industrial Scenes in Washington.



LUMBER.

and the factories are among the many interesting places in the city that furnish instruction, and which school children could visit with profit.

Spokane is situated in the center of what is called the Inland Empire. It is in the extreme eastern part of the state, about four hundred miles from Seattle and Tacoma. Among other public institutions, the United States District and Circuit courts, the Land-Office, the Revenue Office, the United States Depository, and a fine army post are located here. It is the center of a vast territory, and its commercial relations extend to Montana, Wyoming, Utah, Idaho, Oregon, British Columbia, and more distant points. The Spokane River runs through the center of the city. The picturesque Spokane

Falls are within the limits of the city. The river furnishes water-power for a number of large flour-mills, the electric power-house, and other manufacturing interests. The city contains many fine public buildings. It is the center of a great mining district; gold, silver, copper, and lead being the principal products. Spokane is also the gateway to a rich agricultural district. The great flour-mills ship the products of the Palouse wheat country and other grain-growing sections to China and Japan. Spokane is the largest city in eastern Washington, and is the county seat of Spokane County.

Tacoma is a thriving city on Puget Sound, and is noted for its railway machine-shops, its manufacture, and large exports trade to China and Japan, and other cities of the New Pacific. The imports of tea and other products of the Orient from China and Japan are large. There are great warehouses and grain-elevators. Tacoma has beautiful parks, excellent schools, handsome residences, a healthful climate, a magnificent court-house and public buildings, and other interests that will give it high rank among the prosperous cities of the West.

Walla Walla is the county seat of Walla Walla County, and is the oldest town in the state. It is surrounded by a rich and fertile country. It is a prosperous trading center. It has excellent schools, and is the seat of Whitman College and other educational institutions.

Ellensburg is the county seat of Kittitas County, near the Cascade Mountains. The State Normal | and iron shops, etc.

The Heart of the Olympics.



School is located here. The surrounding country is a rich agricultural district. It is also the center of an extensive mining region.

North Yakima, the county seat of Yakima County, is a prosperous city, and lies in the center of a fertile farming and fruit section.

New Whatcom is the county seat of Whatcom County. It has a large trade in general merchandise, coal, lumber, fishing, etc. The State Normal School is located on a picturesque hill overlooking Bellingham Bay.

Everett is an important manufacturing center. The Everett paper-mills manufacture paper for Washington, Oregon, San Francisco, and many other places. The



Against the flaming sunset sky
The Olympic's serried columns lay,
A jagged, purple, sword-edge huge,
Broken and notched in desperate fray.
WILL MEREDITH.

Logging Scene in a Puget Sound Forest.

paper in this book was made at Everett. There are lumber and shingle mills, machine

Vancouver, the county seat of Clarke County, on the Columbia River, was founded in 1828 by the Hudson Bay Company. It is the headquarters of the Military Department of the Columbia. Fruit-growing is an important industry.

ANIMAL AND PLANT LIFE IN WASHINGTON.

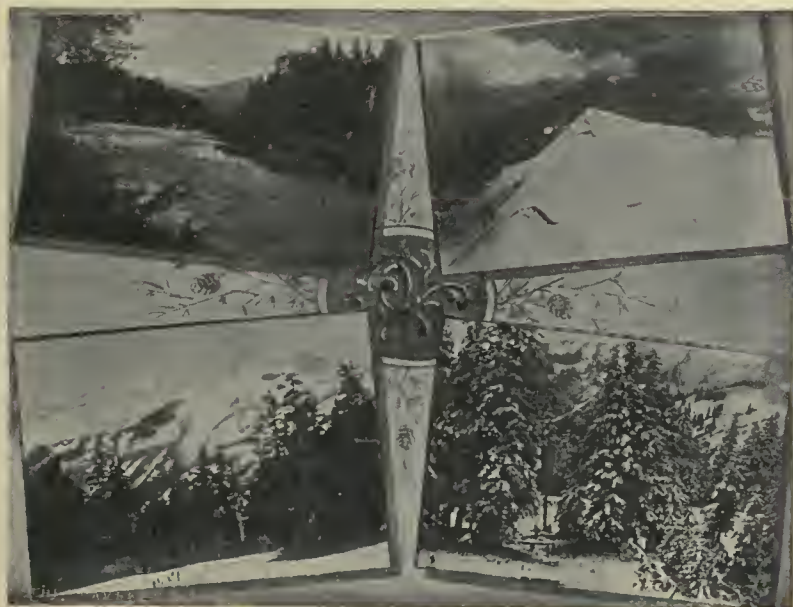
Animal Life. The black bear is frequently seen in the woods. Its average weight is about three hundred pounds. It climbs small trees nearly as quickly as it does large ones. It takes a long sleep during the winter months, choosing a deep thicket or a hollow log for its winter home. The black bear is a good berry-pieker. It is also an excellent fisher. Salmon and berries are its principal food.

The cougar of Washington is similar to the panther of the Eastern States. It is of a tawny color, and lives upon birds, rabbits, deer, and other small animals. It sometimes creates havoc among sheep. Like the coyote, it is a great howler.

The elk or wapiti, the wild cat, the wild goat, and the deer are also to be found in the mountain ranges.

The Douglas squirrel is very plentiful. It has long, black whiskers, strong, sharp claws, roguish eyes, and may be seen any day in a ramble through the woods.

The blue jay, robin, blackbird, woodpecker, yellowham-



Mount Baker in Various Moods.

mer, blue-bird, swallow, crow, and meadow lark, are among the various kinds of birds found in the Northwest.

The ruffed grouse inhabits the entire wooded districts of Oregon and Washington. It likes to perch on mossy logs and flap its wings. In the summer they dust themselves in the roadways and along the edges of fields. They are usually found along the banks of lakes and rivers.

Plant Life. The salal thrives throughout entire western Washington. It is from two to eight feet in height. The bark is reddish brown, while the branches are red when exposed to the sun. It has evergreen leaves, oval in form. The fruit of the salal is a dark purple berry. It is food for the Indians and the grouse. The rhododendron¹ is the state flower of Washington. Herbert Bashford describes it as follows: "The Greeks called it the rosebay, and it belongs to the heath family of plants. This shrub has evergreen leaves and beauti-



Chart of Puget Sound. United States Coast Survey.

ful bell-shaped flowers. The varieties found in the northwest are of various colors, and in the Cascade Mountains there is a rhododendron bearing snow-white flowers. The varieties of this shrub are numbered by the hundred. In beauty of form and foliage, its many colors, and the profusion of its flowers, no other shrub equals it. They are exceedingly hardy, and can be taken up at any time without injury to them.

¹ Rhododendron, of the order Ericaceæ. Flowers, in close terminal clusters, from large scaly bracted buds; corolla bell-shaped, five-lobed, and often irregular; ten stamens, usually bent downward; anthers short, opening by terminal pores; pod five-celled, five-valved, and many-seeded.



Spokane Falls.

Even while they are in full bloom they may be lifted and used for decorative purposes, without showing in the slightest degree the effects of being disturbed."

QUESTIONS ON WASHINGTON.

Why is Washington called "the Evergreen State"? When was it admitted into the Union? Tell, in your own language, what you can about the history of Washington. What is the longest distance from east to west? From north to south? Describe the mountains of Washington. Tell about the Cascade Range. What range forms the water-shed of the state? What is meant by a water-shed? Name some of the mountains you have seen. Where is the Olympic Range? Name several of the important lakes of Washington. Where is Lake Chelan? Where is Lake Washington? Describe the Columbia. Describe Puget Sound. Explain it from the chart given. Name several of the navigable rivers. Name some of the principal rivers of Washington. Name three natural



A Transfer Steamer on the Columbia River.

features that influence the climate of Washington. Tell how the Cascade Mountains influence the climate. How the Japan current influences the climate. What is meant by the Chinook winds? Describe the rainfall of Washington. Describe the soil of Washington. Describe the winds of Washington. What is said about the soil around La Conner. What is said of the soil east of the Cascades? Locate the wheat belt of the state. Locate the timber belt. The mineral region. What is said about the fruits? The fishes? What is the principal industry of Washington? What is said about the canneries? What is a hatchery? Name some of the articles that are manufactured in Washington. What is said of the commerce of Washington? What American cities are nearest the ports of Alaska and Asia? Name the three largest cities in Washington? For what is each one noted? Where is the University of Washington located?



Spokane River.

P A C I F I C O C E A N

B R I T I S H C O L U M B I A

FISHERIES

Gold & Silver

Gold & Silver

Gold & Silver

MAPLE

James Soule Campbell

Industrial
Relief Map
WASHINGTON



QUESTIONS FOR REVIEW.

Questions on the Eastern and Western Hemispheres, to be Answered from the Maps on Pages 20 and 21.

What continents are in the Western Hemisphere? What continent is nearest the North Pole? What continent is nearest the South Pole? Where is the Atlantic Ocean? Where is the Pacific Ocean? In what direction does the great river of South America flow? Into what ocean does it empty? Name the continents of the Eastern Hemisphere. What continents are near the North Pole? What continents are near the South Pole?

Suggestions to the Teacher. In the study of the map of Washington, the knowledge to be gained is merely incidental; the primary object being to give exercises in map-reading, so that the children may be able to make a systematic study of maps. Hold pupils to this work until they read accurately and quickly all that is called for by the questions. It is not designed that the answer should be memorized.

Questions to be Answered from the Map of Washington, Page 26.

Point north on the map. South. East. West. Point to water. Point to land. Trace with a pencil the line of land bordering the water. What name do you give it? Point to the mountains, and name them. Point to the harbors, and name them. Point to the lakes, and name them. Point out three rivers, and name them. Where is the source of each? Trace each to its mouth. Tell direction of mouth from source. Point to three important towns on Puget Sound. Point to the three largest counties. Name them. How can you tell by a map which way the land slopes? In going from Seattle to Ellensburg, do you go up hill or down hill? From Pasco to Spokane? Do the rivers in eastern Washington run in the same direction as the rivers in western Washington? In what direction does the land slope between the Cascade Mountains and the Pacific Ocean? How many counties in Washington? Which is the largest? Which is the smallest? Name the counties that border on the Pacific Ocean. In what county is the capital of the state

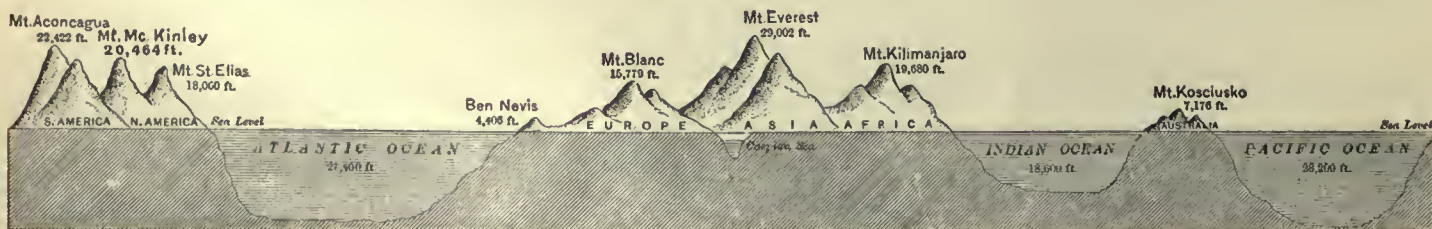


Multnomah Falls, Oregon

located? In what counties are Ellensburg, Spokane, Seattle, and Tacoma located? Name four counties that are noted for wheat-raising. Name four counties that are noted for fruit-raising. Trace the Columbia River from where it enters the state until it empties into the Pacific Ocean. Through what counties does it pass? What great range of mountains crosses Washington from north to south? Name the principal mountain peaks in Washington. Locate Cape Flattery. Locate the Olympic Mountains. Locate Gray's Harbor. Willapa Harbor. Describe Puget Sound. Measure Washington from east to west according to the scale of statute miles. From north to south. Measure Spokane County in the same way. Measure the Columbia River from where it enters Washington to where it empties into the Pacific Ocean, using the scale of statute miles. Washington contains 69,994 square miles. Its population in 1890 was 349,390. How many people to the square mile? Find the rivers that flow into the Columbia. Find the rivers that flow into the Pacific Ocean. Find the rivers that flow into Puget Sound.

Questions on the Pictures.

Describe pictures on pages 13 and 14. Have you ever seen a stream where the pebbles have been worn round and smooth by the water? Describe the map on page 14, showing glacial drift soil. Describe the diagram on page 15, illustrating rain and snow fall. Is the altitude of perpetual snow above the rain clouds? Describe the picture on page 18, showing movements of the earth around the sun. Notice, in the picture of the earth and other planets on page 18, the position of the different planets from the sun. Explain the meaning of the figures on the circles. In the study of Washington, pick out the pictures of buildings that represent schools and colleges, and locate them. What do you see in the picture of Seattle on page 27? Tell about the mountain peaks on page 28. Describe the different industries shown on page 29. Examine the pictures of natural scenery in Washington. Give, in your own words, a description of the most beautiful natural scene you have observed.



Design showing Height of Mountains, Sea-Level, and Depths of Oceans.

NORTH AMERICA.

This continent has an area of 9,000,000 square miles. Its greatest length, from north to south, is 4,500 miles. Its



Outline Map of North America.

greatest width is about 3,250 miles. North America is separated from Asia by Bering Strait, only 40 miles wide, and less than 300 feet deep. It is joined to South America by the Isthmus of Panama, 28 miles wide and 250 feet high.

The Mountains. The Rocky Mountains are sometimes called the backbone of the continent. They form what is called the Great Continental Divide. There is an abrupt slope to the Pacific, and a long, gentle slope toward the Atlantic. The Sierra¹ Nevada² Mountains extend almost the same length as the Rocky Mountains. There are many lofty peaks, including Mount Whitney and Mount Shasta. The Coast Range lies west of the Sierras, and extends from Lower California to Alaska. While much lower than the Sierras, there are a number of lofty peaks. The highest mountain peak in North America is said to be Mount St. Elias, in Alaska. West of the Rocky Mountains the highlands are broken by numerous mountain ranges. On this highland are the great plateaus of Utah and Nevada. The highland or plateau region extends from Mexico to Alaska.

¹ Sierra, a saw. ² Nevada, snow.

The Atlantic highlands are known as the Appalachian system, and extend from the Gulf of St. Lawrence nearly to the Gulf of Mexico. The highest peaks are from 4,000 to 8,000 feet. This system also forms a water-shed or water-parting. The rivers flow on the eastern side to the Atlantic, and on the western side to the interior of the continent. A third water-parting extends from Labrador to the Rocky Mountains. It nowhere exceeds two thousand feet in height.

Volcanos and Earthquakes. There are numerous active volcanos in Mexico and Alaska. There are none east of the Rockies. Earthquakes are frequent, but seldom violent.

Lowlands. The great central plain of North America extends from the eastern side of the Rockies to the western side of the Appalachians, and from the Arctic Ocean to the Gulf of Mexico. It is one of the largest plains in the world. There are small plains on the eastern Atlantic slope, and on the Pacific slope, including the San Joaquin, Sacramento, and Willamette valleys.

The Political Divisions. North America is divided into the Dominion of Canada, Danish America, the United States, Mexico, Central America, and the West India Islands.



A Native Rubber-hunter, Chiapa, Rubber Plantation, Central America.

DANISH AMERICA.**GREENLAND.**

GREENLAND belongs to Denmark, and is ruled by two governors appointed by the King. Greenland was discovered by the Northmen in the tenth century. Because Greenland and Iceland belong to Denmark they are called Danish America. Most of Greenland is covered by a very deep ice-field. The only land that is not covered is along the coast, where there is little vegetation,—mosses, lichens, and fir trees. The principal industry is securing seal skins and seal blubber. The most important place is Godhavn. The polar bear, the musk-ox, and the reindeer are found in Greenland.

ICELAND.

There are many geysers and volcanos on this island. It is of volcanic origin. The most famous volcano is Mount Hekla. Sheep, cattle, and ponies form the chief wealth of the island. There are some cod-fisheries. The eider-duck and seal are also taken in large numbers. The capital is Reykjavik, which has an excellent harbor.

THE DOMINION OF CANADA.

The area is nearly as great as that of the United States. It has a population of about five million people. It is governed by a governor-general, appointed by the ruler of the British Empire. Each province has its own parliament. There is also a general parliament, which resembles our Congress. New Brunswick is one of the important provinces. Its wealth consists of lumber and fisheries. St.

John, on the St. John River, is the principal city. Nova Scotia is an important province. Cape Breton belongs to it. Halifax, the capital, is the naval station of the British Empire in North America. It has a fine harbor. Prince Edward Island is the smallest and most thickly settled province. Farming and fishing are the chief industries. Quebec and Ontario are the two most important provinces. Quebec lies on both sides of the St. Lawrence River. The capital is Quebec. About three-fourths of the people are French. It is one of the oldest and most interesting cities in North America. Montreal is the largest city. It is built on an island in the St. Lawrence. The St. Lawrence is two miles wide at this place, and is spanned by a famous bridge, the longest tubular bridge in the world. Ontario is the richest and most populous part of Canada. It produces large quantities of grain. Toronto, the capital, is a large and flourishing city. Manitoba has a fine soil and produces large crops of wheat. Winnipeg is a great wheat center. There is also excellent pasture for horses, sheep, and cattle. British Columbia borders on the Pacific Ocean. It also includes the islands on the Pacific coast. The capital is Victoria, located on a fine harbor. Vancouver is a growing city, the terminus of the great Canadian Pacific Railway, that runs from ocean to ocean. British Columbia is rich in forests and minerals.

There are vast territories which at one time belonged to the Hudson Bay Company. This company built forts, or trading stations, in many places, and purchased skins of



"Humboldt's Cypress," the Largest Tree in Mexico.

Photo by Charles F. Lummis.

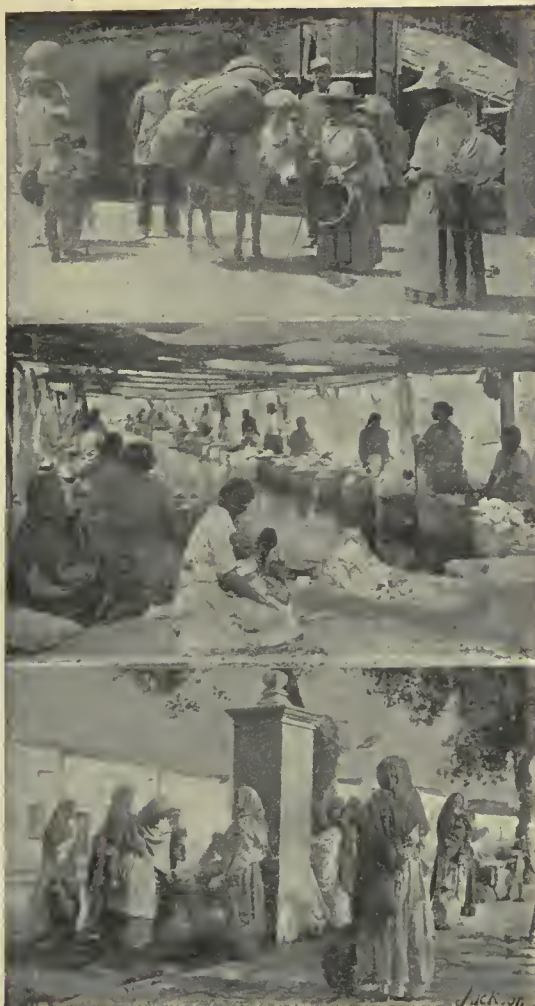
beavers, otters, foxes, moose, and other wild animals from the Indians. The Yukon district, which contains the Klondike gold-fields, is by far the most valuable of the territories. Dawson is the principal city. It is an enterprising mining town. Newfoundland is an important British colony. The principal industry is cod-fishing. The capital is St. John. Labrador is one of the most desolate regions of the world. It has about 1,500 inhabitants, mostly Eskimos.

MEXICO.

The main part of Mexico is a lofty plateau, 4,000 to 8,000 feet above the level of the sea. The northern part of Mexico is mostly desert. Orizaba and Popocatepetl are high volcanic peaks in the southern part.

Mexico has three climates: the low, hot, moist, coast climate; the mountain slopes, with a climate so agreeable as to deserve the name of "the Paradise of Mexico"; the high altitudes, where the climate is cold. The hot lands of the coast produce cotton, sugar-cane, bananas, and other fruits; the temperate lands produce corn, wheat, rice, beans, etc. Large numbers of cattle are exported. Other exports are fine wools, hides, hemp, vanilla, coffee, and tobacco. The great wealth, however, consists of coal, iron, silver, copper, lead, gold, and petroleum.

Mexico has an interesting history. Before it was conquered by Cortez in 1521, it was peopled by the Aztecs,



Scenes in Mexico

a race far advanced in civilization. The ruins of their fine temples may yet be seen. Mexico has a population of about twelve millions. The people of the ruling race are mainly Spanish. The government is now a republic. President Diaz is a wise president. The nation during the last twenty years has advanced to a new destiny. The capital is the City of Mexico. It is



an interesting city. A railroad runs from El Paso, in the United States, to the City of Mexico, Vera Cruz, and other noted places. Along the Pacific Ocean are a number of cities where trade is carried on with coasting-vessels from Puget Sound, San Francisco, and other American ports.



Government Palace, City of Mexico.

CENTRAL AMERICA.

This country is now very important because of the movement to build a ship-canal across Nicaragua, from ocean to ocean, a distance of 170 miles. The canal will utilize for all but 17 miles of the distance the San Juan River and Lake Nicaragua. It will cost many millions of dollars to build this canal, but it will be of great value to the commerce of the



A Ranch Home in Costa Rica.



Fountain, Town of Chiapa, Central America.

world. The natural wealth of Central America is very great. The exports are sugar, copper, tobacco, rubber, tropical fruits, and dye-woods. The population is less than two millions, mostly Indians. There are five independent republics and the British colony of Belize. The republics are Guatemala, Salvador, Costa Rica, Nicaragua, and Honduras.

THE WEST INDIES.

Columbus landed on one of the small islands of this group in 1492. It was called San Salvador. These islands separate the Gulf of Mexico and the Caribbean Sea. Situated as they are in the region of the cyclones of the Atlantic Ocean, they are frequently visited by most destructive hurricanes. Since the end of Spanish dominion in Cuba and Porto Rico, these islands have assumed a new importance. The most important of these islands is Cuba.

CUBA.

CUBA, "the Queen of the Antilles," is the largest island of the West Indies. Its length is about 750 miles; its area is 43,000 miles. There are many small rivers. The coasts are fringed with coral reefs, rocks, and bars. There are a number of fine harbors. The one at Havana will always be noted as being the place where the battle-ship Maine was blown up; and the one at Santiago for the heroic deed of Hobson, and the great naval battle in which Cervera's Spanish fleet was destroyed. Cuba has a population of about 1,500,000 people. Havana is the largest city. It is also the railroad center and chief port. Santiago is also an important city. The products are coffee, sugar, cotton, fruits, etc. The climate during the dry and winter season is beautiful and pleasant. The lowlands are very hot during the rainy season. The Spaniards relinquished all claim to Cuba, and it passed under the control of the United States in 1898. It is at present ruled by a governor-general, appointed by the President. Good free schools have been established.

PORTO RICO.

Porto Rico is about 90 miles long and 36 miles broad. It is in the hot belt, and has dry and rainy seasons. It has a

population of about 900,000 people. San Juan is the capital. The principal products are tobacco, coffee, rice, and sugar. The island belongs to the United States, and is governed by a governor-general, appointed by the President.

Other important islands are Haiti and Jamaica. There are many smaller islands that belong to European nations, Great Britain, France, Denmark, and Sweden.

The Bermuda Islands, about 600 miles east of South Carolina, belong to Great Britain. Bermuda is an attractive winter resort.

QUESTIONS ON NORTH AMERICA.

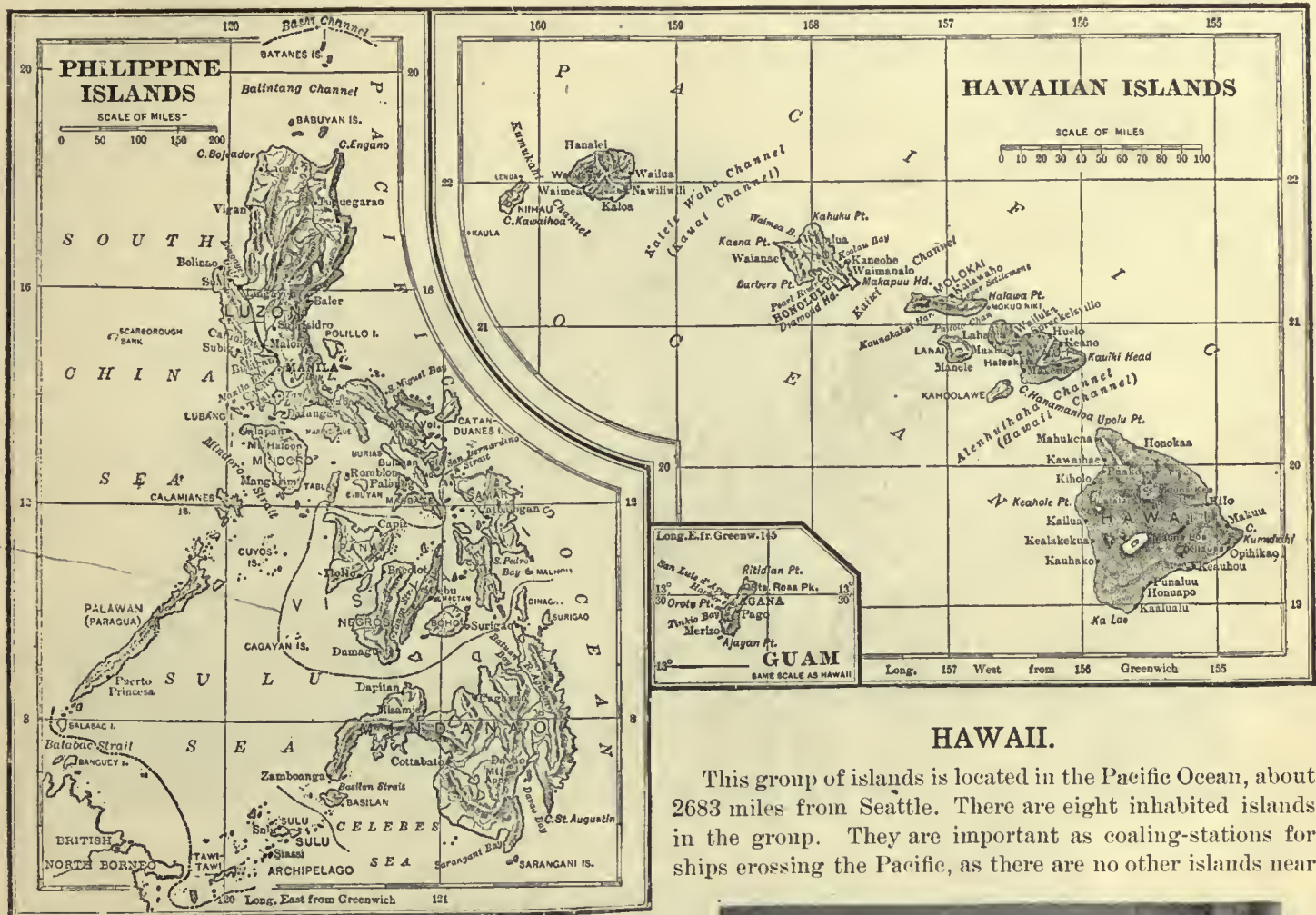
How is North America separated from Asia? How is it joined to South America? What is the distance across the Isthmus of Panama? How wide is Bering Strait? Name the principal mountain ranges of North America. Describe the Rocky Mountains. The Sierras. The Coast Range. The Appalachians. Name the highest peaks. Describe the Rocky Mountain highland. The great central basin. Describe the water-shed of the Rocky Mountain highlands. Describe the parting of the waters of the Atlantic highlands. Name the divisions of North America. What is meant by Danish America? Describe Greenland. What is the principal industry? What animals may be found there? Describe Iceland. What is meant by a geyser? Name the chief source of wealth of the country. Name the capital. Locate the Dominion of Canada. How is it governed? Give the population. For what is New Brunswick noted? Where is Halifax? Has it a fine harbor? Of what country is it the capital? Describe Prince Edward Island. What are the chief industries? Locate Quebec. Name the principal city. How is it located? To what country do the people belong? Where is Montreal? How is it located? Describe the St. Lawrence at this point. Where is the longest tubular bridge in the world? Locate Ontario. Name the capital. What is said of Ontario? What is the principal product? Where is Manitoba? Describe Winnipeg. For what is it noted? Where is British Columbia? Name the capital. Where is Vancouver? Where is the terminus of the Canadian Pacific Railroad? Name the principal industries of British Columbia. Describe the Yukon Territory. What is the chief city? Where was gold discovered in this territory a few years ago? What is meant by the Klondike? Where is Newfoundland? What is the principal industry? Name the capital. What is said of Labrador? Locate Mexico. What is said of its highlands? What is said of its lowlands? Describe its three climates. Name its principal exports. What is its great industry? How is it governed? Who is the president? What is its population? Name the capital. Why is Central America important at this time? Where is Nicaragua? How far is it from ocean to ocean at this place? Name the five countries of Central America. What is the population? What colony has the British Empire in Central America? Describe the people. Where did Columbus land in 1492?

Where are the West Indies? Name the most important island in the group. What is its length? Its area? What is said of its shores? Name the principal city. For what is the harbor of Havana noted? For what is Santiago noted? How is Cuba governed? What is said of its schools? What is said of its products? Describe Porto Rico. Name the capital. How is it governed? What are the principal products?



Mexican Hut.

THE NEW PACIFIC.



HAWAII.

This group of islands is located in the Pacific Ocean, about 2683 miles from Seattle. There are eight inhabited islands in the group. They are important as coaling-stations for ships crossing the Pacific, as there are no other islands near



Fruits from Islands in the New Pacific.

The Mediterranean was the first great sea of commerce. Then the Atlantic Ocean attained supremacy. Now the Pacific has awakened to a commercial life to which its waters have hitherto been unknown. The accession of new territory by the United States promises much for this new life. The boundary of the eastern coast of the New Pacific¹ extends from Point Barrow to Cape Horn. The western coast extends from East Cape to Melbourne. It includes in its eastern coast St. Michael, Cape Nome, Skagway, Sitka, Vancouver, Victoria, Seattle, Tacoma, Grays Harbor, Portland, San Francisco, Los Angeles, San Diego, Guatemala, Nicaragua, Panama, Callao, Valparaiso, and Santiago, and on its western coast, Okhotsk, Vladivostok, Tokyo, Yokohama, Formosa, Hongkong, Manila, Singapore, Brisbane, Sydney, Melbourne, Aneka, Honolulu, and many island ports. The three principal groups of islands in the Pacific are known as Polynesia, Malaysia, and Australasia.

¹ Usually called Oceania or Oceanica.

the natives. There is a statue of him on the island, near the spot where he fell.

Surface and Climate. The Hawaiian Islands rise from a great depth in the ocean, and reach a height of fourteen thousand feet above the sea-level. The two largest volcanic craters in the world, Kilanea and Manna Loa, are on the island of Hawaii, the chief island, and the one from which the group is named. The Punehowl, a small cone immediately back of Honolulu, is an extinct crater. Mauna Kea is a volcanic peak 13,800 feet above the level of the sea. Manna Loa is an active volcano, and is frequently in eruption. The climate of the islands is very pleasant and healthful.

Products. Sugar is the main product of the islands. Rice, bananas, coffee, hides, and wool are exported. The principal food of the natives is taro, a root like the beet in

lines to different parts of the Pacific Coast. The city is popular as a resort for tourists.

THE PHILIPPINE ISLANDS.

The Philippine Islands were discovered by Magellan, who made the first voyage through the Strait of Magellan, and crossed the Pacific. They are about 6,500 miles from the Pacific Coast, and about 400 miles from Hongkong. The United States secured possession of these islands from Spain in 1898. It is estimated that there are from fourteen hundred to sixteen hundred islands. They have never been counted or surveyed.

The islands of first geographical importance are Luzon, Mindanao, Samar, Panay, Negros, Leyte, Palawan, Mindoro, and the Sulu Archipelago.

The largest island of the group is Luzon, which



Views in the Hawaiian Islands.

- | | | |
|-----------------------|--------------------------|---------------------------|
| 1. Old Plantation | 4. Tropical Home. | 7. Scene on Oahu Railway. |
| 2. Banana Plantation. | 5. Pineapple Plantation. | 8. Cutting Sugar-cane. |
| 3. Kapiolani Park. | 6. Coffee Plantation. | 9. Glimpse of Honolulu. |

shape, but tasting somewhat like the potato. The beautiful vegetation, the tropical fruits, the healthful climate, make Hawaii an enchanted spot in the ocean.

People. The population of the islands is about 110,000. About one third of the natives are of the brown race and half-castes, more than one third are Chinese and Japanese, and the remainder are white people. When the islands were discovered by Captain Cook, about a century ago, there were five times as many natives as there are now, and their number is continually decreasing.

Government. Hawaii was annexed to the United States in 1898, and has a territorial form of government. The capital is Honolulu, a beautiful city of about 30,000 population, with fine churches and excellent schools. It is a port of call for trans-Pacific steamers, and has regular steamship

lies farthest to the north. It is 480 miles long, and has an area of 40,982 square miles. Manila, the principal city, is situated on Luzon, and this island naturally leads the others in points of population and commercial importance.

The total area of the Philippine Islands is 114,356 square miles. The islands are nearly all of volcanic origin, and their geology is almost wholly unknown. Most of the islands are hilly, and there are some high mountain ranges, between which lie fertile valleys, well watered by numerous rivers and lakes. There are many peaks ranging from seven to ten thousand feet. The largest lake is called Bay Lake. It is about 145 miles in circumference. It is the source of the Pasig River, which flows by the city of Manila.

The People. Over thirty different tribes, with thirty different languages, live on these islands. The two prin-

cial native peoples are called Tagalos and the Visays. The Tagalos live on the low lands of Luzon. The Visays inhabit all the islands south of Luzon. The population of the islands is about 8,000,000, the greater part being Malay natives. There are upwards of 60,000 American soldiers upon the islands. There are some few Spanish residents.

Climate. The climate of the Philippines is tropical, but, owing to the extent of the country and its position, there is a very wide range of temperature. The year is divided into three seasons. The cold season, when the wind blows from central Asia, and the air is clear and bracing, lasts from November until March. The hot season lasts from March till June. From July to October is the rainy season. On the northern islands violent winds called typhoons are prevalent.

Products. The forests abound in ebony, cedar, and other valuable woods. The bamboo is to the natives what the redwood, the pine, the cedar, and the fir are to the residents of the Pacific Coast. Many kinds of fruit grow in great abundance. Rice is the chief food of the people. Manila hemp, sugar, tobacco, coffee, and cocoa are the principal exports. The mineral wealth has not as yet been developed, but coal, iron, copper, and gold have been found.

Manila. Manila is the chief city of the islands, and was established in 1751. It is called "the Walled City." It has some fine buildings and numerous schools and colleges. The schools are now being organized on the American plan.

Iloilo, on the island of Panay, is another important city.

GUAM.

GUAM, the most southern of the Ladrone Islands, is another possession of the United States. The natives are Malays. It is of small area, but of value as a coaling and repair station in the mid-Pacific. Agana is the chief town.

THE SULU ISLANDS.

THE SULU ISLANDS, which lie to the southwest of the Philippines, form a portion of the Pacific concessions of Spain to the United States. They are about 150 in number. Most of them are valueless masses of rock, but some of the larger ones are fertile. The natives are Mohammedans, and have been such for many centuries.

AUSTRALASIA.

AUSTRALASIA includes Australia, Tasmania, New Zealand, New Guinea, the Caroline Islands, and a number of other small groups.

AUSTRALIA.

AUSTRALIA has a population of 3,073,000, and an area of 649,229 square miles. Its interior consists of treeless plains.

2,946,691



Map of the New Pacific.

The only important streams are the Murray River and its tributaries. In the northern part the climate is extremely hot, and the interior is dry. In New South Wales, long, dry seasons are of frequent occurrence, and floods often damage the country in the rainy season.

Sheep-raising is the leading branch of industry, although many cattle and horses are raised. There are a few native fruits of value, but wheat, corn, cotton, sugar-cane, and tropical fruits have been introduced with much success. Australia is one of the great gold-producing countries of the world. There are also copper, iron, silver, tin, lead, zinc, and coal. Gold and wool are the staple exports. The natives are of a low grade of intellect. They are few in num-

ber, and are rapidly diminishing. The commerce is mostly with Great Britain.

Melbourne, the capital of Victoria, is the largest city in



Post-office at Melbourne.

Australia. Sydney, the capital of New South Wales, has a fine harbor. All the cities have modern improvements.

TASMANIA.

TASMANIA is noted for its deposits of coal, iron, tin, and other minerals. It has also excellent timber in its forests.

NEW ZEALAND.

NEW ZEALAND is valuable for its gold, coal, silver, tin, flax, and wool. The soil is wonderfully productive. Auckland is the principal city of New Zealand. Australia, New Zealand, and Tasmania all belong to Great Britain.

HISTORICAL NOTE.

Australia was discovered by the English, and for a century and a half was used by them for a penal colony, just as Siberia was used by the Russians. In 1840 this practice was abandoned, and free colonists, who had been coming for thirty years, rapidly increased in numbers, and the progress of the country during the past fifty years has been wonderful.

SAMOA.

SAMOA lies northeast of the Fiji Islands, and consists of a group, only three of which are of any size, Savaii, Upolu, and Tutuila. The total population is about 35,000. Apia is the principal city. The soil is fertile, and yields abundant crops of coffee and cotton. Bread-fruit and cocoanut-palms grow profusely. The picturesque beauty and the genial climate of these islands attracted Robert L. Stevenson, the famous writer. He made Upolu his home. Germans, Britons, and Americans are interested in these islands, and the United States has secured the port of Pango Pango, on the island of Tutuila, for a coaling-station.

NEW GUINEA.

NEW GUINEA, next to Greenland, is the largest island in the world. It is separated from Australia by a shallow strait. It has dense forests and a fertile soil. The Netherlands claim the western part, Germany a part of the north coast, and Great Britain holds the rest.

THE SOLOMON ISLANDS, NEW CALEDONIA, and THE FIJI ISLANDS all have a warm climate, abundant moisture, and luxuriant vegetation. The food-plants are the cocoanut-palm, bread-fruit, tea, yams, and sugar-cane. Tropical fruits are exported.

The Fiji Islands are of volcanic origin. The Fijians were once cannibals. Many of them have become Christians. These islands, now quite civilized, are an important factor in the commerce of the New Pacific.

NOTE.

By looking at the globe, it will be seen that the circles running parallel to the equator grow smaller as they approach the poles. Every circle, regardless of size, is divided into three hundred and sixty parts, called degrees. It is evident, then, that the degrees vary in length, and that they grow shorter as the distance from the equator increases. On the equator a degree has 69.8 miles.

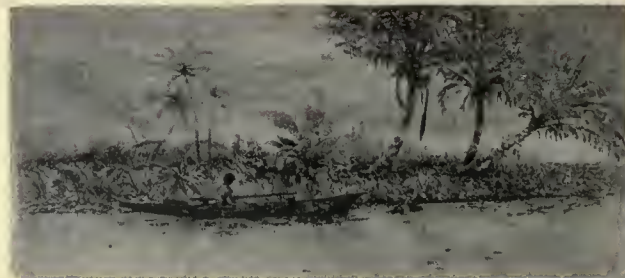
Masters of steamers going from Tacoma or Seattle, to Japan, go north, so as to cross on the shortest possible parallel circle; viz., fifty-two degrees, just south of the Aleutian Islands. This is known as "great circle sailing."

QUESTIONS ON THE NEW PACIFIC.

Locate the New Pacific. Describe its eastern boundary; its western boundary. Name some of the commercial ports of the New Pacific. Name the three principal groups of islands in the New Pacific. Locate Hawaii. Who discovered these islands? What happened to Captain Cook? Describe the surface; the climate. Name the products. Describe the people; the government. Who discovered the Philippine Islands? When did they come into possession of the United States? Name the principal islands. Describe the surface of the islands; the climate; products. Name the principal cities. Describe Guam. Tell what you can about the Sulu Islands. Describe Australia. What are the products? Name the principal cities. Give an account of Tas-



Robert Louis Stevenson's Home in Samoa.



An Island in the New Pacific.

mania. Describe New Zealand. Locate Samoa; the Fiji Islands; Guam. What is said of the climates of these islands? What is said of the products?

THE UNITED STATES.



The National Capitol, Washington, D. C.

Location. The United States occupy the middle portion of North America. The greatest length, from ocean to ocean, is 2,500 miles; the greatest width, from Texas to Canada, is 1,600 miles; and the area, including Alaska, is 3,668,167 square miles.

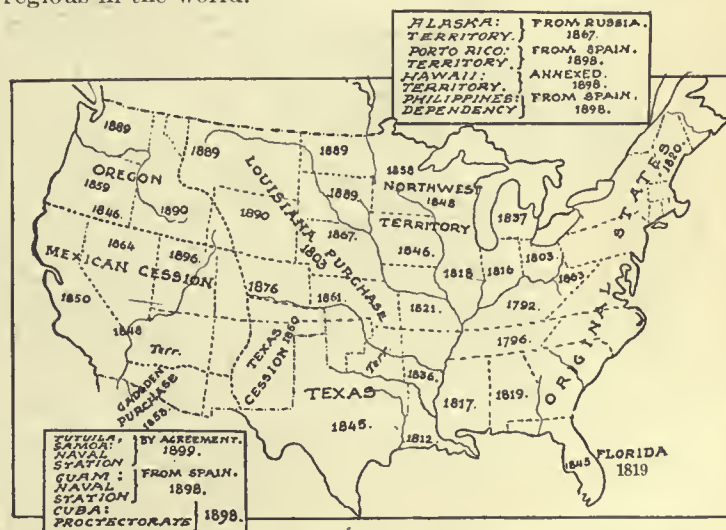
The United States is the most progressive country of the Western Hemisphere. Its large cities, its fine schools and universities, its great manufacturing enterprises, the fertility of its soil, the variety of its products, the social and economic condition of its people, and its matchless progress make it the most wonderful country on the globe.

The United States has an area of over 3,500,000 square miles. It comprises the Appalachian Highland, the Atlantic Plain, the Great Central Plain, Pacific Highland, and Pacific Slope.

The river basins of the Atlantic Plain are small; rocky toward the north, and sandy or swampy toward the south.

The Appalachian Mountains are the oldest mountains on the continent. They have gradually worn away, and thus furnish soil for the Atlantic Slope and the Great Central Basin.

Nearly one half of the United States lies in the Great Central Plain. It is one of the most extensive productive regions in the world.



Growth of the United States. Diagram showing the date of admission of the states and the accession of new territory.





Map Showing Highlands and Lowlands of the United States.

The Mississippi River Basin contains over 1,000,000 square miles. There is only one larger river basin in the world,—the Amazon. The Missouri-Mississippi is the longest river in the world.

One third of the territory of the United States lies in the Pacific Highland. This includes the Rocky Mountain Plateau, and the basins of the Columbia and the Colorado Rivers, and the interior basin of Utah and Nevada.

The Pacific Slope region contains many large and fertile plains, although its general character is mountainous. The influence of the warm Japan current makes its climate more genial than that of any other portion of the United States of equal latitude.

The Growth of the United States. At the close of the Revolutionary War in 1783, the new republic was formed. The map shows the original thirteen colonies or states.

The country has grown very much since then. In 1803, the United States purchased from Napoleon what is known as the Louisiana Purchase. A few years later, Florida was purchased from Spain. Then came the era of steamboats and railroads, and the settlements extended to the West.

Texas was annexed in 1845, and a few years later, California and other territory was gained from Mexico. In 1867, Alaska was purchased from Russia, for \$7,200,000. In 1898, the Hawaiian Islands were annexed. Cuba, Porto Rico, Guam, and the Philippine Islands were ceded to the United States by Spain.

A study of the map showing when each state was admitted into the Union, and the accession of new territory, will be very interesting.

The People. A hundred years ago there were less than

3,000,000 people in our country. Now, there are over 70,000,000. Much of this rapid growth is due to people coming to this country from other lands, particularly from Ireland and Germany. Of late years there has been an effort to stop immigration, particularly people from Asiatic countries, and contract laborers from Europe.

Religion. There is no established religion, but almost every creed is represented.

Products and Industries. The United States is the foremost country in the world in the production of corn, wheat, cotton, and tobacco.

There are three natural divisions of products: The Southern, Middle, and Northern. The first is the land of cotton; the second, the land of corn; and the third, the land of wheat. More hogs and cattle are raised than in any other country.

The salmon fisheries of the Columbia River, Puget Sound,



Map of Cuba.

and Alaska, and the codfish and oysters of the Atlantic coast, form important industries.

The mineral products are very valuable. The coal and



Map of Porto Rico.

iron of the Eastern and Southern sections; the copper, lead, gold, and silver of the North, Western, and Southwestern sections; and the gold of Cape Nome and the Yukon keep millions of people busy.

The natural gas in the Middle States is used for fuel and for manufacturing purposes.

The oil regions extend from Pennsylvania to California.

The manufactures of the United States are rapidly increasing. The Atlantic coast, from Maine to Pennsylvania, is the great manufacturing center. This is due to the excellent water-power, numerous railroad and steamship lines, and the density of population. In Chicago and other Eastern cities, beef, pork, and mutton are prepared for export and home use by processes of manufacture. Manufactures of bread-stuffs, clothing, iron and steel, woolen goods, boots and shoes, leather, liquors, and novelties are distributed throughout the entire country.

The people are noted for their inventive power. The telegraph, telephone, and graphophone, and the application of electricity to all the various industries of life were first used in this country. Other inventions are the cotton-gin, typewriter, typesetting-machine, sewing-machine, bicycle, automobiles, mowers, reapers, and combined harvesters, and labor-saving machines of all kinds.

Commerce. Trade within the boundary of our own country is called domestic commerce. When the trade is with merchants of other countries, it is called foreign commerce. When we bring any products from other countries to our country, we call them imports. We import sugar, tea, coffee, spices, drugs, silks, and perfumes. When we send products to merchants of other countries, we call them exports. We export wheat, cotton, provisions, tobacco, iron and steel, lumber, and dairy products.

Transportation. The coastwise trade of the Pacific and the Atlantic is carried on by great merchant vessels.



Wild Animals of the Pacific Coast.

- | | | | |
|--------------------|---------------|------------------------|-------------------|
| 1. Mountain Sheep. | 3. Wild Cats. | 5. Coon and Cat Skins. | 7. Mountain Lion. |
| 2. Coyote. | 4. Mule Deer. | 6. Red Fox. | 8. Grizzly Bear. |

The Great Lakes near Chicago, the Mississippi, the Ohio, and other rivers, and numerous canals form means of transportation, when speed is not required. The chief means of transportation, however, are the railroads.

Government. The United States is a republic. There are now 45 states, 5 territories, and several other possessions. There are national, state, and local governments. The national government is divided into three parts: the Law-making, the Executive, and the Judicial.

QUESTIONS ON THE UNITED STATES.

Locate the United States. What is its greatest length from ocean to ocean? Describe its highlands and lowlands. What is said of its progressiveness? What about its growth? What territory has it secured since 1898? Population? Religion? Name the principal industries. Name the principal products. What is said of its commerce? Describe its facilities for transportation. Describe its government.



INDUSTRIAL STATISTICS OF

MISCELLANEOUS STATISTICS.

Tobacco	{ Product, 403,004,000 lbs. }	1896
	{ Value, \$24,258,000 }	
Wool	Product, 272,191,330 lbs.	1899
Hogs, number packed and marketed	29,791,000	1899
Wheat	Product, 597,294,000 bu.	1898
Butter and cheese	Value, \$6,500,000	1899
Sugar	Product, 708,951,000 lbs.	1898
Farm products	Value, \$2,460,107,454	1890
Fisheries	Value, 50,000,000	1899

EXPORTS FROM UNITED STATES—1898.

Agricultural products	\$854,627,929
Mining	19,802,417
Forest	37,900,171
Fisheries	5,538,925
Manufactures	288,871,449
Miscellaneous	3,551,206
Total	\$1,210,292,097

LAND UNDER CULTIVATION

Indian corn	
Wheat	
Oats	
Cotton	
Barley	
Potatoes	

CHIEF WHEAT-GROWING STATES

Minnesota	
California	
Kansas	
North Dakota	
Illinois	
United States	



Industrial and Relief Map
of the
United States.

UNITED STATES. — For Reference.

896.

227,000 acres.
619,000 acres.
566,000 acres.
185,000 acres.
950,000 acres.
767,000 acres.

ES — 1896.
lion bushels.
lion bushels.
lion bushels.
lion bushels.
lion bushels.
lion bushels.

CHIEF COTTON-GROWING STATES—1899.

Texas	3,143,000 bales of raw cotton.
Georgia	1,448,000 bales of raw cotton.
Mississippi	1,776,000 bales of raw cotton.
South Carolina	960,000 bales of raw cotton.
Alabama	1,161,000 bales of raw cotton.
United States	11,235,000 bales of raw cotton.

CHIEF MINERAL PRODUCTIONS—1896.

Bituminous coal	Product, 122,893,000 long tons.	Value, \$114,899,000
Anthracite coal	Product, 48,010,000 long tons.	Value, 81,413,000
Pig-iron	Product, 8,623,000 long tons.	Value, 90,250,000
Gold	Value, 53,088,000	
Silver	Value, 76,069,000	

GROWTH OF RAILWAYS IN THE UNITED STATES.

Date	1830	1850	1870	1890	1896	1898
Miles open	23	9,021	52,922	166,668	182,600	186,396

ESTIMATED WEALTH OF THE UNITED STATES.

Real estate, with improvements thereon	\$89,544,544,333
Live-stock on farms and ranges, farm implements, etc.	2,703,015,040
Mines and quarries, including product on hand	1,291,291,579
Gold and silver coin and bullion	1,158,774,948
Mill machinery, product on hand, raw and manufactured	3,058,593,441
Railroads and stock, including \$283,898,519 street railroads	8,685,407,323
Telegraphs, telephones, shipping, and canals	701,755,712
Miscellaneous	7,893,708,821
Total	\$65,037,091,197





THE PACIFIC COAST STATES.

California, Oregon, Washington, and the territory of Alaska border on the Pacific Ocean. Washington is treated of in the preceding pages.

OREGON.

Location. Oregon is south of Washington, and north of California. Its western border is the Pacific Ocean. Its length, from east to west, is about 350 miles, and it is about 275 miles in breadth.

Mountains. The Cascade Mountain Range extends from north to south, and divides the state into eastern Oregon and western Oregon. One of the largest forest reservations in the world is in the Cascade Range. Crater Lake, the deepest fresh-water lake in America, is also in the Cascade Mountains. It fills the crater of an extinct volcano, and is surrounded by bluffs two thousand feet in height. Mount Hood, Mount Pitt, and Mount Jefferson are all picturesque peaks.

Valleys. The Willamette Valley, between the Cascades and the Coast Range, is one of the most beautiful and fertile in the world, and is the most highly cultivated valley in the state. There are numerous coast valleys opening towards the Pacific, the most important of which are those of the Rogue and Umpqua rivers. The scenery along most of the rivers of the state is very beautiful, and is majestic at the Cascades, where the Columbia breaks through the mountain walls of lava basalt.



Crater Lake, Cascade Mountains, Oregon.

Rivers. The Columbia, with its tributaries, drains the greater part of Oregon. It forms the northern boundary of the state for a distance of 300 miles. Its chief branches in Oregon are the Willamette, Des Chutes, John Day, Umatilla, and Snake. There are numerous short rivers flowing from the Coast Range directly into the ocean, of which the largest are the Rogue and the Umpqua. The Klamath River rises in the lake country in the southern part of the state, which it drains, and flows along the northern part of California.

Products and Industries. The mountains are well covered with timber. Wheat, oats, and fruits are raised. The fisheries and creameries are important enterprises. There is considerable gold mined in the eastern and southern parts of the state.

Cities. Portland is the principal city. It is said to be the richest city in the world, *per capita*. It is 120 miles from the ocean, but has all the advantages of a seaport. It has regular steamship lines to Alaska, China and other Oriental ports, and for coastwise trade. Other thriving cities are The Dalles, Pendleton, Baker City, Salem, Ashland, Eugene, and Astoria. The State Univer-



On the Columbia River, Oregon. The Dalles.

sity is located at Eugene, the Agricultural College at Corvallis, and normal schools at Monmouth, Weston, Ashland, and Drain. Salem is the capital.

CALIFORNIA.

CALIFORNIA is one of the most remarkable states in the Union. Its variety of climate, its matchless resources, its forests of redwoods, its groves of oranges and lemons, its wonderful springs, and unequaled natural scenery make it one of the most favored states in the Union.

Location. It is over seven hundred and fifty miles long, and two hundred miles wide. The southern border is Mexico, and the western the Pacific Ocean.

Mountains. The Sierra Nevada Range extends north and south nearly the entire length of the state. The loftiest summits are Mount Whitney, 14,898 feet high, and Mount Shasta, "lone as God, and white as a winter's moon," 14,350. The Coast Range extends near the coast line the entire length of the state. Some of the most noted peaks are Monte Diablo, 3,849 feet; Mount Hamilton, 4,440 feet, the site of the famous Lick Observatory; and Mount Tamalpais, overlooking San Francisco, is 2,597 feet high. Mount San Bernardino and Mount San Jacinto, in southern California, are also noted peaks.

Valleys. The San Joaquin, Sacramento, Santa Clara, Napa, and other valleys of the state are very fertile. The two largest rivers are the Sacramento and the San Joaquin. The most noted lake is Lake Tahoe. The most wonderful natural scenery is the celebrated Yosemite Valley. There are very beautiful summer and winter resorts, lakes, and springs from San Diego to the Oregon line. The climate in southern California is dry, equable, and healthful. In northern California there is more rain. The climate, however, is not severe along the coast.

Products and Industries. The products are varied. Oranges, lemons, olives, and raisins are the principal exports from the south. Wheat, wines, and fruit of all kinds form the principal exports of the central and northern parts. Mining is an important industry. Gold, silver, quicksilver, copper, petroleum, and coal form important industries. Stock-raising, lumbering, manufactures of all kinds, including the great ship-building firm, the Union Iron Works, are important and flourishing businesses carried on in the state.



Tillamook Lighthouse, Oregon.

Schools. California has two of the great universities of the country, the University of California and Stanford University. There are state normal schools at San José, San Francisco, Chico, Los Angeles, and San Diego, which offer special advantages, and there are public schools in every part of the state, comparing favorably with any in the country.



Summit of Mount Whitney.



Mount Hamilton and the Lick Observatory.

Cities. San Francisco, by the Golden Gate,¹ is the largest city on the Pacific Coast. Los Angeles, Oakland, San José, Fresno, Stockton, and San Diego are all important cities. Sacramento is the capital.

Riverside, Santa Barbara, Coronado, Castle Crag, Redlands, and Monterey are noted resorts.

¹ The entrance to San Francisco harbor was named the Golden Gate by Frémont (1848), in a letter to the government.

ALASKA.

ALASKA forms nearly one sixth of the United States. It was bought in 1867, from Russia, for \$7,200,000. It is in the extreme northwest part of North America. It is bounded on the north by the Arctic Ocean, on the west by Bering Sea, and on the south by the Pacific Ocean.

Rivers. The principal river is the Yukon. It rises near the Pacific, on the northern side of the Chilkoot Pass, and flows into Bering Sea. Its winding currents resemble an enormous horseshoe. It is over a mile wide 600 miles from its mouth, and it is navigable for small steamboats. It is two thousand miles long, and empties into Bering Sea, through a delta. Its drainage basin is second in size on the continent. Copper River is another great river.

Climate. The great Japan current is borne to the Alaskan shores. The prevailing winds in the summer are from the south, and are warm and moist. As they blow up on the mountains they become cool, and the land is enveloped in mist and clouds. The southern part of Alaska, therefore, has a heavy rainfall. The interior is intensely cold during the most of the year. The ground is frozen to a great depth, and the surface of the earth is one great body of ice. On account of the north part being near the north pole, there are several weeks in the winter when it is night all the time, and several in the summer when it is day all the time.

Products. The Pribilof Islands are noted for fur-seals. Otters, martens, black and brown bears, and the silver fox are also killed for their furs. Cod and salmon are caught in great quantities, and there are many salmon factories.

At Cape Nome, gold was discovered in 1898. Thousands of people have been attracted to Alaska by the discoveries in the Klondike region, Circle City, Nome, and elsewhere. The caribou is found in the interior of Alaska.

People. The gold discoveries of recent years have sent a large number of white people into the



In the Yosemite Valley.

somewhat resemble the Eskimo. The natives have strange and interesting customs. The first white settlements in Alaska were made by the Russians.

Settlements. Sitka is the capital of Alaska. Juneau is a thriving mining town, and Cape Nome is one of the most important mining settlements in the West. St. Michael and Circle City are important trading posts. Skagway and Dawson are also places of importance. The city of Nome is located on the north shore of Bering Sea, about 120 miles northwest of the island of St. Michael, and is about 2,500 miles from Seattle. It takes its name from Cape Nome, a rocky promontory



Moonlight on Lake Tahoe.

country. Eskimos, and Indians, and Aleuts are the native races; the Aleuts live on the Aleutian Islands, and

Mountains. The principal mountains of Alaska are: Mount McKinley, named after the President of the United States, 20,464 feet high, which is the highest mountain in North America; Mount Wrangell, 19,400; Mount St. Elias, 18,100; Mount Crillon, 15,900; Mount Cook, 16,000.

QUESTIONS ON THE PACIFIC STATES.

Locate Oregon. Describe its mountains. Tell what you can about Crater Lake. What are the principal products? Name the capital. Give its principal cities. Describe Portland. Where is the State University located? Why is its climate similar to that of Washington? For what is California remarkable? Locate it. Describe its mountain ranges. Describe its valleys. Describe its river systems. What are the principal products? Locate its two great mountains. Name five of its principal cities. What is the largest city on the Pacific Coast? Who named the Golden Gate?

Locate it. Locate Alaska. Tell about its climate. What is peculiar about its days and nights? What are its principal products? Describe the Yukon River. Where is Cape Nome? For what is it noted? What



The Muir Glacier, Alaska.

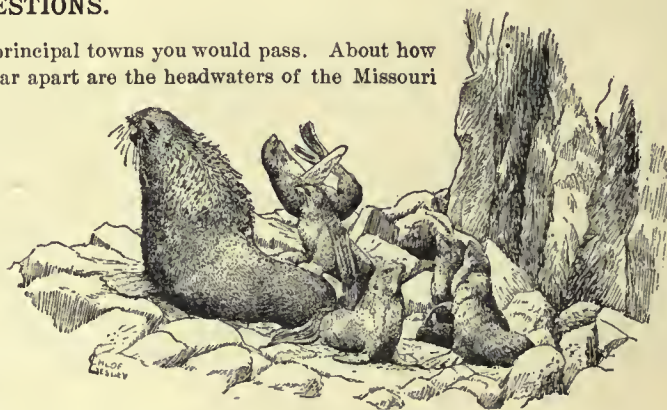
is the capital of Alaska? How is the country governed? Name the native races of the country. What is the highest mountain in Alaska? For what is Alaska noted?

SEARCH QUESTIONS.

Locations. What continents lie in the Eastern Hemisphere? What continents lie in the Western Hemisphere? Locate the North Pole and the South Pole. Locate the state of Washington. Which is the largest county in Washington? Find the latitude and longitude of Seattle. Of Spokane. If Seattle is in about the same latitude as Halifax, why is it colder in Halifax than in Seattle? Locate the oceans. Compare the Eastern and Western Hemispheres as to land and water.

Rivers. Name the four principal rivers of North America. If you were to take a boat and go from the headwaters of the Columbia River to its mouth, through what states would you pass? Name the principal natural features you would see *en route*. Name five of the

principal towns you would pass. About how far apart are the headwaters of the Missouri



The Fur Seal of Pribilof.

and Columbia rivers. Name the five principal rivers that flow into the Pacific Ocean. Name the five principal rivers that flow into the Atlantic.

Mountains. Which is the highest mountain in North America? Where is it located? Which is the highest mountain in Washington? Name the highest mountain in California. In Mexico.

Population. Make a list of the principal cities of the Pacific Coast. Make a list of the principal cities of the New Pacific. What part of North America is most thickly populated? What part has the fewest people? How many of the five principal races live in the United States?

Natural Products. Make a list of the ten chief food products of North America. Tell where each one grows. Do corn and coffee grow in the same climate? Make a list of the chief mineral products of North America. Of Washington. If you were to send a ship from Puget Sound to Asia, what natural products would make up its cargo?

Industries. Name five of the leading industries of Washington. Of Mexico. What is the principal industry of the Hawaiian Islands? Search the industrial and relief map of the United States and name each industry represented in the pictures shown.



Indian Deerskin Dance. Humboldt County, California.

THE UNITED STATES.



Outline Map of the United States.

THE NEW ENGLAND STATES.

The six states in the extreme northeastern part of the United States of America are called New England. These states have a well-educated, industrious population, and fine school systems. They are more densely populated than any other section of the United States. Thousands of people spend their summer vacations in the beautiful mountain and lake regions in the northern part of these states. These six states known as New England are Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut.

MAINE.

MAINE, "the Pine-Tree State," is the largest of the New England States, and is the extreme northeasterly state of the Union. About one half of the surface of Maine is covered with forests of pine, spruce, hemlock, and birch, which supply much valuable lumber, and material for wood pulp. The state is also

noted for its excellent farm products. Ship-building and fishing are important industries. The principal city is the seaport of Portland. An extensive trade is carried on at this port with Canada and England, and its commerce with the West Indies is also large. Bangor is the great lumber market of the state. Augusta, situated on the Kennebec River, is the capital. Biddeford, Saco, and Lewiston are important towns. Bath is famous for its lumber trade and ship-building. Rockland supplies most of the lime used in the Eastern States.

NEW HAMPSHIRE.

NEW HAMPSHIRE, "the Granite State," has a population largely engaged in the manufacture of cotton and woolen goods, and in quarrying stone. Concord is the capital, and is celebrated for the manufacture of wagons and coaches. Manchester, Nashua, Dover, Keene, and Great Falls are thriving manufacturing towns. Hanover, in this state, is the seat of Dartmouth College.



Plymouth Rock.

VERMONT.

VERMONT, "the Green Mountain State" (French, *vert*, green; *mont*, mountain), is a fine wool-growing, stock-raising, and dairying country, and is especially famed for its horses. The maple sugar of Vermont is also a noted product. Burlington, located on Lake Champlain, is the largest city. Rutland and St. Albans are important centers of trade. Montpelier is the capital.

MASSACHUSETTS.

MASSACHUSETTS, "the Bay State," or "the Old Colony," is the wealthiest and most populous of the New England States, and in manufactures and commerce is one of



Faneuil Hall, Boston. "The Cradle of Liberty."

the most prominent states of the Union. Boston, the capital of Massachusetts, is the largest city in New England. It is noted for its libraries, public schools, and places of historic interest. Bunker Hill Monument, Faneuil Hall, and the Old South Church are sacred to those who love American institutions. Cambridge, the seat of Harvard University, is a place of historic interest. It was here that Washington took command of the American forces. The largest manufacturing establishments are at Lowell, Fall

River, and Lawrence. Worcester, the second city in size, is a great railroad and manufacturing center. It is the seat of Clark University. Springfield is the location of a United States arsenal, and from this city the Springfield rifle, which has been used for years by the United States army, derives its name. This arsenal was made famous, also, by Longfellow's poem, "The Arsenal at Springfield." Lynn is famous for its manufactures of women's shoes. New Bedford was formerly the greatest whaling port in the world. Taunton is famous for the manufacture of locomotives, cotton machinery, and britannia-ware. Massachusetts, however, will be more appreciated by the pupils of the public schools for the literature it has given to the world. Longfellow, Holmes, Hawthorne, Lowell, and Emerson were all residents of this state.

RHODE ISLAND.

RHODE ISLAND is the smallest state in the Union. Its chief manufactures are cotton and woolen goods, machinery, fire-arms, and jewelry. It has two state capitals. Newport, one of them, is situated on a fine harbor, and is noted as a watering-place. Providence, the other capital, has a large commerce, and manufactures extensively cotton goods and silverware. It is the seat of Brown University.

CONNECTICUT.

CONNECTICUT, "the Blue Law State," and "the Land of Steady Habits," manufactures almost half of the hardware, more than half of the table-ware, and most of the pins and clocks used in the United States. The valley of the Connecticut is the most fertile part of the state, and is noted for its fine tobacco crops. Hartford is the capital, and is the center of large fire and life insurance and manufacturing interests. New Haven ("the City of Elms"), on Long Island Sound, is the seat of Yale College. Bridgeport, New London, Norwich, Waterbury, Meriden, and Danbury are large and prosperous towns.

QUESTIONS ON NEW ENGLAND.

Which is the largest New England state? In what does it excel? Name the principal city in Maine. What is said of Portland? Name several of the important manufacturing towns in Maine. What and where is Augusta? What is said of Bath? Why is New Hampshire called "the Granite State"? Name several of the principal industries of New Hampshire. What is said of Concord? Name the largest city in New Hampshire. Name several of the manufacturing towns. Where is Dartmouth College? What does the name "Vermont" mean? What are the most important industries of Vermont? In what does it excel all states? Name its principal cities. What is the rank of Massachusetts as a New England state? Tell what you can about its commerce. What is the principal commercial city of New England? For what is it distinguished? What university is located at Cambridge? What places of historic interest are in Boston? What university is located at Worcester? For what is Springfield noted? What great literary men have lived in Massachusetts? Which is the smallest state in the Union? Where is Newport, and for what is it noted? What state in the Union has two capitals? Which state in the Union manufactures most of the pins, clocks, and table-ware? From what state in the Union do we get most of our hardware? Where is Hartford? For what is New Haven noted? For what is the valley of the Connecticut noted? Name several of the important towns of Connecticut.

THE MIDDLE ATLANTIC STATES.

NORTHERN DIVISION.

The northern division of what are called the Middle Atlantic States is composed of New York, New Jersey, and Pennsylvania.

NEW YORK.

NEW YORK, "the Empire State," is the most important state in the Union, and ranks first in wealth, population, manufactures, and commerce. The climate of western New York is tempered by the lakes. It is a fine farming country. Wheat, corn, and fruits flourish. This state is famous for its butter, hay, hops, and grapes. It abounds in beautiful natural scenery. The Niagara Falls are one of the most remarkable natural wonders of the world. The falls have a descent of 300 feet, the power from which has of late years been utilized for operating great electric generating plants and numerous large manufactories. New York City is the largest and richest city in the United States. By the annexation of suburban cities it now forms what is called Greater New York. Brooklyn, now a part of Greater New York, is connected with the city proper by the longest suspension bridge in the world. New York City is noted for its fine public and private libraries and churches, palatial residences, handsome park, and other attractions. It is the seat of Columbia University and of the University of New York. Albany is the capital of the state, and is an important inland city. It is situated on the right bank of the Hudson, at the mouth of the Erie Canal. Buffalo, on Lake Erie, is an important city, with an enterprising business population and a constant growth. Rochester, on the Genesee, and Oswego, at the mouth of the Oswego River, possess fine water-power, and are extensively engaged in manufacturing and milling. Near Rochester are located some noted nurseries of fruits and flowers. Syracuse is noted for its salt-springs and salt-works. Troy has ample water-power, and is largely engaged in manufacturing. The country bordering on the Hudson River is noted for its handsome homes and beautiful grounds, and the highlands of the Hudson are noted for the grandeur of their scenery. The National Military Academy at West Point is situated on the right bank of this beautiful river.



Castle Garden, New York, the Statue of Liberty in the Distance.



Niagara Falls by Moonlight.

NEW JERSEY.

NEW JERSEY is famous for its fruits. Its gardens largely supply New York and Philadelphia with vegetables. New Jersey is also rich in mines of iron and zinc. Newark, the largest city in the state, is noted for its manufactures of india-rubber, leather goods, clothing, and jewelry. Paterson, at the falls of the Passaic River, is noted for its locomotive-works and manufactures of silk goods. Princeton is the seat of Princeton University.

PENNSYLVANIA.

PENNSYLVANIA, "the Keystone State," is the leading mining state of the Union. Coal, coal oil, and iron are its chief products. Anthracite coal is found in the eastern part of the state, and bituminous coal is found in the western part. The crude oil is pumped from the wells to the seaport and lake cities through iron pipes, and is exported to all parts of the world. The soil and climate are well adapted, and the crops of grain and tobacco, as well as grazing products, are important. Philadelphia is the third city in manufacturing, commerce, and population in the United States. It is celebrated for its schools, charitable institutions, and historic buildings. The Old State House, where the Declaration of Independence of the United States was signed, July 4, 1776, is located in Philadelphia, and in Independence Hall hangs the old "Liberty Bell." Pitts-



City Hall, New York City.

burg, the second city in the state, and Allegheny, which ranks next in size, are on the Ohio River. These cities are largely engaged in the manufacture of iron and glass. Harrisburg is the capital, and is largely interested in the manufacture of iron.

QUESTIONS ON THE NORTHERN MIDDLE ATLANTIC STATES.

How does New York rank in wealth, in population, in commerce, and in manufactures? What are the principal products of New York? What is said of New York City? What is said of the suspension bridge? What is said of Rochester and Oswego? Of Troy? Where is West Point? For what is New Jersey famous? What minerals does this state produce? What is said of Princeton? In what does Pennsylvania surpass other states? What part of the state produces anthracite coal? What is said of petroleum? What is said of Philadelphia? Name its most famous building. What does Pittsburgh manufacture? What is the capital of the state of Pennsylvania?

THE MIDDLE ATLANTIC STATES.

SOUTHERN DIVISION.

The southern division of the Middle Atlantic States is composed of Delaware, Maryland, Virginia, West Virginia, and the District of Columbia.

DELAWARE.

DELAWARE, "the Diamond State," is second to Rhode Island in size. Its soil is well adapted to fruit and vegetables. Dover, situated inland, is the capital. Wilmington is the largest city of the state. The manufacture of cars, iron, wooden ships, and leather is extensively carried on.

MARYLAND.

MARYLAND, "the Old Line State," has a climate and soil favorable to the production of peaches, small fruit, and a high grade of tobacco. Chesapeake Bay extends far inland, and has the finest oyster-beds in the world. This state also yields a variety of minerals. Annapolis is the capital, and is the seat of the United States Naval Academy, situated on Chesapeake Bay. Baltimore is the chief city. The Johns

Hopkins Institute, the Peabody Institute, and other notable institutions of learning, are located in this city.

DISTRICT OF COLUMBIA.

THE DISTRICT OF COLUMBIA contains sixty-four square miles, ceded to the United States by Maryland, on the east bank of the Potomac River, as a site for the national capital, Washington City. The district is governed by three commissioners appointed by the President, and its laws are made by Congress. The people living in this district have no voice in the election of their own officers, or of those of the general government.

VIRGINIA.

VIRGINIA, "the Mother of Presidents," is noted for its tobacco, ranking next to Kentucky in the production of this article. Its peanut crop is the largest in the country, and it produces large quantities of wheat. Virginia is rich in iron and other minerals, and has some valuable lumber regions. Richmond is the capital and largest city of the state, and is a place of historic interest. Mount Vernon, the country seat of George Washington, lies on the west bank of the Potomac, a few miles below Washington City. The house contains many valuable relics, and near it is Washington's tomb. Norfolk and Newport News are important ports. There is a United States navy-yard at Norfolk. One of the largest ship-building plants in the country is located at Newport News. Lynchburg, Petersburg, and Roanoke deal extensively in tobacco and other produce. The Natural Bridge of Virginia is a beautiful arch two hundred feet above a small river that flows into the James River, in the western part of the state.

WEST VIRGINIA.

WEST VIRGINIA, "the Panhandle State," was separated from Virginia, and formed another state, in 1863. The soil in the western part of the state is exceedingly fertile and productive. The eastern portion is mountainous. The state is rich in coal, iron, petroleum, natural gas, and salt, and produces large quantities of coke. Charleston is the capital of the state. Wheeling is the most important city, and is located on the Ohio River. It is largely engaged in the manufacture of iron. Huntington is an important shipping-point for coal and iron, and Parkersburg, in the oil region, is quite a trade center.

QUESTIONS ON THE SOUTHERN MIDDLE ATLANTIC STATES.

How does Delaware compare in size with the other states of the Union? What are the products? What is the capital? the largest city? What articles are extensively manufactured in this state? What is said of the products of Maryland? What is said of its oyster-beds? What important academy is located at Annapolis? What is the largest city in Maryland? What is the area of the District of Columbia? Of what importance is it the site? How is it governed? For what product is Virginia chiefly noted? What is the capital and the largest city in the state? Where is Mount Vernon, and for what is it noted? What are the manufacturing industries of Virginia? Name a remarkable natural curiosity of Virginia. What is said of the origin of West Virginia? Name the capital. What is the chief city? Name the mineral products of West Virginia. Name the most important trade centers.

THE SOUTHERN STATES.

North Carolina, South Carolina, Georgia, Florida, Alabama, Tennessee, Louisiana, Arkansas, Mississippi, Texas, Oklahoma Territory, and Indian Territory comprise this group. The surface of these states is low and level, except where broken by the extension of the Appalachian Mountains in the east and the Ozark Mountains in the west. The Atlantic and Gulf coasts are swampy, and tide-water runs far up the rivers. The summers, throughout this region, are long and hot. Snow falls over most of it during the winters, but remains only a short time. Frost rarely occurs as far south as Florida. Agriculture is the chief industry of these states. Cotton is the most important product. The manufacture of iron and cotton goods is increasing rapidly. These states raise three times as much cotton as all the rest of the world. Sugar-cane, rice, resin, turpentine, and iron are also important products.

NORTH CAROLINA.

NORTH CAROLINA, "the Old North State," has valuable pine forests and excellent farming land on the coastal plains, and the central and western parts abound in minerals. Swamps cover nearly four thousand square miles in this state. The pine forests yield abundantly of turpentine, pitch, tar, and resin. Raleigh is the capital. Wilmington is the largest city, and is an important market.

SOUTH CAROLINA.

SOUTH CAROLINA, "the Palmetto State," has a mild and healthful climate. In the region of the foothills there are many beautiful cataracts, and the pine-lands have many noted health resorts. Cotton, rice, and sugar-cane are the most important products. There are also valuable phosphate deposits in this state. Charleston has a fine harbor, and is the most important seaport. Columbia, the state capital, and Greenville are thriving manufacturing towns.

GEORGIA.

GEORGIA, "the Empire State of the South," has products of cotton, turpentine, and resin; it also produces the largest peach crop of any state in the Union. It is rich in minerals, abounding in iron, marble, and slate. Atlanta is the largest city, and is a growing cotton-manufacturing center. Savannah, located on the Savannah River, is one of the great markets of the world for cotton, rice, lumber, turpentine, and pitch. Augusta, Macon, and Columbus manufacture cotton goods.

FLORIDA.

FLORIDA, "the Peninsula State," along its Atlantic coast line, has many sand-bars, and at the south there is a continuous coral reef, broken here and there by channels. This reef is called the Florida Keys, the word "key," from the Spanish *cayo*, meaning islet. The southern part of the peninsula, called "the Everglades," is broken by shallow channels of water, running in all directions, forming wooded islands, grassy regions, swamps, and lakes. The climate is



Agricultural Department, Washington City.

very much modified by the warm waters of the Gulf of Mexico, and also by the Gulf Stream, which flows on its eastern shore. Its winters are therefore very mild, and the summer seasons are of moderate temperature. For these reasons it has become noted as a winter and health resort, a land of orange groves, pineapples, and coconuts,—the only tropical region in the United States, except southern California. Florida raises fruits and vegetables for the early Northern markets. It also produces rice and sugar-cane. Lumbering is an important industry. Jacksonville is the largest city and chief seaport. It is a very popular winter resort. St. Augustine, an early Spanish settlement, is the oldest town in the state. Key West, on a coral island at the southern extremity of the state, manufactures cigars, and is the chief market for sponges. Pensacola and Tampa are important shipping ports.

ALABAMA.

ALABAMA is crossed by a timber belt in the southern part of the state. The central part is devoted to agriculture. The northern part is hilly, and contains vast stores of iron and coal. This state ranks among the first iron-producing states of the country. Birmingham is noted for its manufacture of this product. Montgomery is a trade center for the surrounding country. Mobile is the largest city in the



Smithsonian Institution, Washington City.

state, and is a great shipping port for lumber, cotton, and Southern products.

MISSISSIPPI.

MISSISSIPPI, "the Mudcat State," ranks among the first cotton-producing states of the South. The state is traversed by a broad, low ridge from north to south. The lowlands adjacent to the Mississippi River, which are cut up by bayous that branch off all along that stream, are remarkably fertile and productive. Vicksburg is the largest city. Meridian is a trade center for eastern Mississippi. Much cotton is shipped from Natchez.

TENNESSEE.

TENNESSEE, "the Big Bend State," is undulating in its central portion, and is devoted to wheat, corn, hemp, and tobacco. Blue grass thrives here, and stock-raising is profitable. In the western part of the state the soil is well adapted to the cultivation of cotton and tobacco. This is the chief manufacturing state of the South. The output of the factories is cottonseed oil, iron and steel, woolen goods, flour, and lumber. The eastern part of Tennessee has very valuable mines of iron, copper, zinc, and quarries of an excellent quality of marble. Memphis is the most important cotton market of the country. Chattanooga manufactures much iron and steel. Nashville, the capital, and Knoxville, in eastern Tennessee, are important trade centers. From the summit of Lookout Mountain, near Chattanooga, there is a fine view of the Tennessee River and the surrounding country.

LOUISIANA.

LOUISIANA, "the Pelican State," in its northern and western parts, is upland, having a fertile soil and heavy forests. The delta of the Mississippi River, formed by the accumulation of alluvia that have been swept down this large stream for ages, is exceedingly fertile. More sugarcane and rice is produced in Louisiana than in any other state. Cotton, also, is largely cultivated. New Orleans is the largest city in the South. It is situated on the Mississippi, about one hundred miles from its mouth. At the mouth of the river, banks called jetties have been constructed so as to confine the water of the river, and by the action of the current the sand-bars have been carried away, and a channel opened to the city from the gulf for the largest vessels, thus making New Orleans a great shipping port. A large part of the population of this city are of French or Spanish descent, called Creoles, and speak the French language. Shreveport ranks second in population, and also as a cotton market. Baton Rouge is the capital.

ARKANSAS.

ARKANSAS, "the Bear State," is mountainous and broken in its northern part. In the eastern part are many small lakes, bayous, and swamps. It is heavily wooded. It produces some coal, but its most important products are lumber, cotton, corn, and peaches. Little Rock is the capital, and most important city. Hot Springs is a widely known health resort. There are many springs, ranging from a

low to a quite high temperature, which are reputed to cure various diseases. Fort Smith and Pine Bluff are other cities of importance.

TEXAS.

TEXAS, "the Lone Star State," has more than four times the area of all the New England States. It was for a time a part of Mexico, but afterwards became an independent republic, and was finally admitted into the Union. The eastern and southern parts of the state produce large quantities of cotton, corn, and other agricultural products. The northern and central portion is devoted to stock-raising, and produces more sheep and cattle than any other part of the country. In the western part of the state is a barren plateau, called the "Staked Plain." The name is taken from the only plant that is found there, the yuccas, which stand like stakes over the plain. Dallas, San Antonio, Galveston, an important seaport on the gulf, and Houston are the largest cities. Fort Worth and Waco are other important railway centers. Austin, the capital, is a thriving commercial point.

INDIAN TERRITORY.

This territory has been allotted by the government to various tribes of Indians. Each tribe, removed from other parts of the country, has been given a definite area, called a reservation. Five civilized tribes—Cherokee, Chickasaw, Choctaw, Creek, and Seminole nations—have large reservations. The population numbers about 175,000, less than one third of whom are Indians. Many white men and negroes have become citizens of the nations, under their local laws. Indian Territory is not governed as other territories organized under the general laws of the United States. Each tribe has its own chief, legislative body, treasurer, and other officers, who are under the supervision of the Bureau of Indian Affairs at Washington City. The money due the nations, as they are called, for the sale of their lands is held in trust by the United States government, and the interest is paid annually to the treasurer of each nation. The land is held in common, but a citizen of the reservation may use whatever land he can fence in. Many enterprising Indians have large farms, which they lease at a good profit to white and black men.

The Cherokee Nation has a good government and excellent schools. Tahlequah is the chief town.

The Creek Nation has its capital at Okmulgee. On this reservation is Muskogee, the chief commercial town, where is located the United States court for the territory.

The Choctaw Nation has the largest reservation.

The Chickasaw Nation has the largest population, mostly white men.

The Seminole Nation is the wildest and much the smallest of the five nations.

OKLAHOMA TERRITORY.

OKLAHOMA was purchased from the Indians and separated from the Indian Territory in 1890, when it was opened for settlement to the white man. Other additions have been made to it since that date. The soil is very fertile, and the

climate is equable, so that most of the products of the Northern and Southern states may be raised, though the agricultural qualities of the country are not yet fully developed. It has a territorial government. Guthrie, the capital, and Oklahoma are the most important towns.

QUESTIONS ON THE SOUTHERN STATES.

What states are called the Southern States? What is said of the surface of this region? What is the chief industry? What is said of the climate? What are the chief products of North Carolina? Name the capital. Largest city. What is the climate of South Carolina? What are its products? What is the principal seaport? Name the capital. What are the agricultural products of Georgia? Mineral? What is said of the peach crop? What is said of the manufactures? Name the most important cities. What is said of the coast of Florida? Where are the Florida Keys? From what is the word "key" derived? What are the Everglades? What is said of the climate of Florida? What is the Gulf Stream? What are the productions of Florida? Name the most important cities. What are the most important agricultural and mineral products of Alabama? What article is extensively manufactured in this state? Name an important seaport. What are the principal towns? For what product is Mississippi noted? What is a bayou? What is said of the lowlands? Name the most important cities. What are the agricultural products of Tennessee? What is said of its manufactures? What are the mineral products? Name its important cities. Name a historic mountain of this state. What is said of the surface and soil of Louisiana? What is the delta of the Mississippi? What are the chief products? What is the largest city? Where situated? What is meant by Creole? What language is spoken by the Creoles of New Orleans? What is the capital? What is said of the surface of Arkansas? What are the products? What is the capital? What town is a noted health resort in this state? What is said of the size of Texas? Of what country was Texas formerly a part? What are the most important agricultural products? For what industry is this state chiefly noted? What is the Staked Plain? Name a prominent seaport and the important towns of this state. For what use was the Indian Territory set aside by the government? Name the five civilized tribes of Indian nations. What is said of the population? How are the tribes governed? Name the important towns. When was Oklahoma opened for settlement? What is the form of government? What is the capital?

THE CENTRAL STATES.

Kentucky, Ohio, Michigan, Indiana, Illinois, Wisconsin, Minnesota, Iowa, Missouri, Kansas, Nebraska, South Dakota, and North Dakota form the group called the Central States.

In this region are the great basins of the Ohio, Missouri, and upper Mississippi rivers. In the northern parts of Wisconsin and Michigan are elevations over a thousand feet high. In the western part of Nebraska, North Dakota, and South Dakota is a rough country, where colored rocks have been worn by the action of water into fantastic shapes, and cañons with steep walls, which country has been called by the Indians the "Bad Lands," because bad for traveling. Southern Missouri is broken by the Ozark Mountains, and eastern Kentucky by the Cumberland Mountains. The regions near the rivers are rolling, and often covered with timber. The term "prairie," a French word meaning meadows, is applied to the grassy plains of the Mississippi basin. The surface is level, or slightly undulating, and no trees grow, except along the banks of watercourses. The

soil is adapted to raising different kinds of grain, especially corn and wheat.

Agriculture is the most important industry of this section, which is the chief granary of the United States. Corn, wheat, oats, and live-stock are the great products. Kentucky produces nearly half of the tobacco raised in this country. Flax, fruit, and vegetables are also important products of the Central States.

Iron is produced in large quantities in Michigan, Ohio, and other states of this section, as well as coal and other minerals.

WISCONSIN.

WISCONSIN, "the Badger State," is an important stock-raising, dairying, and agricultural state, producing hay, wheat, corn, oats, barley, and rye. Lumber, flour, malt liquors, leather, woolen goods, and meat are important manufactures.

Milwaukee is the largest city, and is noted for its machinery, tanneries, beer, and smelting-works. Superior and Racine have large manufactories, and do an extensive commerce on the lakes. Oshkosh and La Crosse are large producers of lumber. Madison is the capital.

MICHIGAN.

MICHIGAN, "the Wolverine State," in its southern peninsula, is devoted chiefly to agriculture and manufacturing. In the northern portion of the state the manufacture of salt and lumber is carried on together, the refuse lumber from the mills furnishing the fuel for the salt-pans, by which process salt is made very cheaply. This state produces two fifths of the iron ore of the country, and ranks second in the production of copper. Gypsum and fresh-water fish are important productions.

Detroit, on the Detroit River, is an important railway center, and its blast-furnaces turn out immense quantities of iron. Grand Rapids is largely engaged in the manufacture of furniture. Saginaw and Bay City are large lumber and fish markets. Ann Arbor is the seat of the University of Michigan. Lansing is the capital.

ILLINOIS.

ILLINOIS, "the Prairie State," is one of the most level and best-watered states of the Union. A canal has been constructed at an immense cost, connecting Lake Michigan, by way of the Chicago and Illinois rivers, with the Mississippi River. More horses are reared in Illinois than in any other state. It ranks among the first in the production of corn, wheat, hay, and oats. This state is the second in the Union in the amount of its manufactures. It makes more watches than any other state.

In 1830 only a few houses stood where now the city of Chicago covers a greater area than any other city in the world. It is the greatest lake port and railroad center of this country. The transactions here in grain, live-stock, lumber, and meat-packing are the greatest in the world. Peoria, the second city in size, has large factories and distilleries. Quincy, Rockford, and Joliet are important

manufacturing and trade centers. Springfield, the capital, is situated in a coal-mining district.

INDIANA.

INDIANA, "the Hoosier State," is chiefly an agricultural state, producing corn, wheat, oats, barley, and fruits. Coal and iron are mined. The eastern part of the state abounds in gas-wells, which supply fuel and light throughout the state, and also to Chicago and many other cities. It also yields petroleum.

The manufactures are iron and steel, tin-plate, wooden-ware, woolen goods, and glass.

Indianapolis, the largest city, is a great railway center, and carries on an extensive trade with the surrounding country. Evansville, on the Ohio River, is the main shipping-point for the southern portion of the state. Fort Wayne, Terre Haute, South Bend, and New Albany are other important cities.

OHIO.

OHIO, "the Buckeye State," ranks first in agricultural and dairying products, in rearing sheep and swine, and in the manufacture of earthenware and brick. Corn, wheat, oats, and tobacco are among its staple products. Apples, grapes, and small fruits are raised. The state has valuable stone quarries; coal and iron are extensively mined, and there are products of petroleum, salt, and natural gas.

Cleveland, a beautiful city on Lake Erie, and Cincinnati, on the Ohio River, are the largest cities in the state, and both are important manufacturing and commercial centers. Toledo and Dayton are important cities. Columbus is celebrated for its manufacture of wagons and carriages; it is the capital of the state. Youngstown, Springfield, Canton, and Akron have valuable factories.

KENTUCKY.

KENTUCKY, "the Dark and Bloody Ground," also called the "Blue Grass State," is devoted to agriculture and grazing. One third of its area is covered with forests. One of the greatest natural wonders of the country, known as the Mammoth Cave, is found in the limestone region of this state, where there are many caverns. The winding passages of the Mammoth Cave penetrate the earth for miles, and exhibit many curious features produced by the action of water upon its walls. It contains a stream of clear, limpid water, called Echo River.

This state is noted the world over for its fine horses. It is first



In the Northwest. Alone with Nature.

among the states in the production of tobacco, hemp, and flax. Its coal-fields, iron-ore beds, and stone quarries yield important products.

Louisville is known as the greatest tobacco market in the world. Lexington is the trade center of the blue-grass region. Frankfort is the capital of the state.

MINNESOTA.

MINNESOTA, "the Gopher State," has a growth of timber on more than half its area, the remainder being prairie. The state has numerous picturesque lakes, which abound with fish. The lake regions are popular as summer resorts.

More wheat is produced in this state than in any other in the Union. The value of its iron mines ranks next to those of Michigan. Flour and lumber are its chief manufactures. Minneapolis, the largest city, is noted for its grain market and flouring-mills. St. Paul is a great commercial center. Duluth, situated on Lake Superior, is a great shipping-point.

IOWA.

IOWA, "the Hawkeye State," is a leading state in the production of corn, wheat, oats, and hay, and is second in the production of flax. There are many lumber mills, which obtain their supply of logs from Minnesota by way of the Mississippi River.

Des Moines is the largest city, and is an important market for the products of the state. This city is also the state capital. Sioux City, Dubuque, and Davenport are trade centers. Burlington has large lumbering-mills.

MISSOURI.

MISSOURI, "the Bullion State," is devoted chiefly to agriculture, and has a wide variety of products. Its yield of corn, wheat, oats, and hay is large. Two thirds of the zinc product of the country, and vast quantities of lead and iron, are mined in the southern part of Missouri. Coal is found in plentiful quantities at various points.

St. Louis is the largest city of the Mississippi Valley. This city was founded by the French in 1764. It forms the great depot of exchange of products between the northern and southern parts of the country, and is an important manufacturing center. Kansas City is second to Chicago as a live-stock

and meat-packing market and railroad center. St. Joseph is an important trading point. Jefferson City is the capital.



In the Northwest. Ojibway Cemetery, Cass Lake

KANSAS.

KANSAS, "the Squatter State," in its eastern part, is undulating and quite fertile, merging into a vast prairie, reaching away to the west. The western portion is dry and unproductive. Kansas is among the leading states in the production of corn, wheat, and live-stock.

Coal, lead, and zinc are important mineral products. The salt and gypsum regions are very extensive.

Kansas City, Kansas (which, in effect, is a part of Kansas City, Missouri, the dividing line being the middle of a street), is the largest city, and is noted for its slaughter and packing houses. Topeka, the capital, Wichita, and Leavenworth are important cities.

NORTH DAKOTA.

NORTH DAKOTA is principally a prairie country, and has a very fertile soil in many parts. Wheat and live-stock are the principal productions. In the Red River Valley are very large wheat farms, some containing as many as thirty thousand acres. Cattle ranches are also on a large scale.

Fargo and Grand Forks are the chief trading centers.

SOUTH DAKOTA.

SOUTH DAKOTA is like North Dakota. The principal products are wheat and cattle. Gold, silver, tin, and coal are found in the Black Hills.

Sioux Falls is the largest city and railroad center. Huron, Yankton, and Pierre are trading-points. Deadwood is the mining town of the Black Hills.

NEBRASKA.

NEBRASKA is very fertile in the eastern part of the state, and yields large crops of hay and grain. Beets are a staple product, and the making of beet sugar is an important industry.

Omaha is a large city, having great works for smelting and refining ore. It is extensively engaged in the manufacture of linseed oil and packing meat. Lincoln, the capital, Hastings, and Nebraska City are important trade centers.

QUESTIONS ON THE CENTRAL STATES.

What states are termed the Central States? What three large navigable rivers are in this section? What is said of the surface? What is meant by the word "prairie"? What two ranges of mountains are in this region? What are the two great cereal products? What are the agricultural products of Wisconsin? What are the chief products of manufacture? What is the largest city, and for what is it noted? Name some other cities of Wisconsin, and the capital. What part of Michigan is devoted to agriculture? What are the products? What minerals are found in the northern part? What is said of the production of salt? What is said of the iron and copper production? Name some important cities. What noted college is located at Ann Arbor? What are the agricultural products of Illinois? What is said of its manufactures? What is its largest city? What is the rank of Chicago in population and wealth? What are the great industrial interests of Chicago? How is Lake Michigan connected with the Mississippi? Name some other important cities of Illinois. What are the agricultural products

of Indiana? Name the mineral products. What are the principal articles of manufacture? Name the important cities. In what productions does Ohio rank first? What are its mineral products? What is its largest city? For what is Columbus noted? Name some other important cities. By what other name is Kentucky often called? To what productions is it principally devoted? For what is Kentucky famous? What noted natural wonder has Kentucky? Name the most important cities. What is the capital? In what agricultural product does Minnesota excel? What are the chief manufactures? What is the largest city? For what is it noted? Name the leading agricultural products of Iowa. Name some important cities of this state. What are the agricultural products of Missouri? What minerals are mined? What is its largest city? What other important commercial city is in this state? What are the most important agricultural products of Kansas? What minerals are mined in this state? Name the principal cities. What are the productions of North Dakota? What are the chief towns? What are the products of South Dakota? What mining district is located in this state? Name the most important towns. What are the chief products of Nebraska? What is the largest city? Name some other important towns.

THE MOUNTAIN AND PLATEAU STATES AND TERRITORIES.

Montana, Wyoming, Colorado, and New Mexico are crossed by the main range of the Rocky Mountains. Idaho, Nevada, Utah, and Arizona are the plateau division, and are broken by lesser mountain ranges. All of this region is elevated, the plains at the foot of the Rocky Mountains being over five thousand feet above the level of the sea.

This section abounds in wonderful natural scenery. The rivers run in deep-walled cañons, notable among which are the Grand Cañon of the Arkansas and the Cañon of the Colorado. The atmosphere is dry and clear, and the lofty mountains may be seen many miles away. In this part of the country a low mountain that arises abruptly from the surrounding country is called a "butte," and a table-land bounded by cliffs is known as a "mesa."

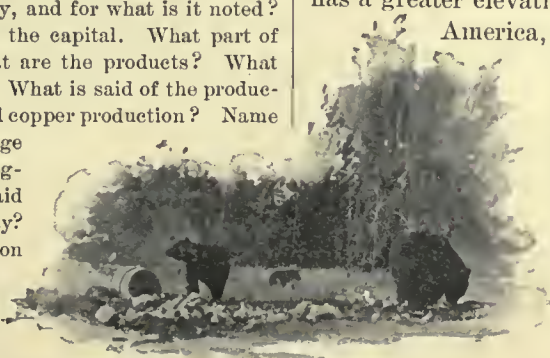
This group of states covers several natural regions:—

1. The Great Plains, sloping from the foot of the Rocky Mountains toward the Mississippi.
2. The Rocky Mountains.
3. The Great Basin, crossed by several short mountain ranges.
4. The Columbian Plateau, in the north.
5. The Colorado Plateau, in the south.

In the Rocky Mountain Range are several peaks fourteen thousand feet high, and the general level of the country has a greater elevation than the mountains in eastern North America, with one or two exceptions.

The Great Basin is a triangular region lying between the Wasatch Mountains and the Sierra Nevada. In the northern portion are found some fertile valleys of small scope, but the southern part is hot, dry, and sterile.

In this group of states, stock-raising and mining are the chief occupations. The soil requires irrigation to be productive. Vast herds of cattle and sheep graze in the valleys and



Bears. Yellowstone Park



In the Region of the Grand Cañon of the Colorado.

foothills. Gold, silver, quicksilver, lead, iron, copper, and coal are mined throughout this region, and more silver is produced than in any other part of the country.

MONTANA.

The irrigated farming-lands of this state comprise greater area than some of the important Eastern states. Vast herds of cattle, horses, and sheep are grazed on the bunch-grass that flourishes on its plains and foothills. The state ranks first in the production of copper. Its yield of gold, silver, and other minerals is large.

Helena and Butte are flourishing mining centers. Great Falls and Anaconda have large copper-smelters.

WYOMING.

Grazing is the leading industry of this state. It has very little farming-land. Coal is the only mineral mined to any great extent.

Cheyenne and Laramie are important shipping-points for the surrounding country.

In the northwestern corner of the state, lying partly in Montana and Idaho, are about four thousand square miles reserved by the government as the Yellowstone National Park. It contains numerous geysers, which spout forth boiling water at intervals to the height of 250 feet; lakes of boiling water side by side with pools of water almost ice-cold; basins of red, white, yellow, and brown boiling mud called "paint-pots"; holes in the forest that send forth sulphur fumes; the beautiful Yellowstone Lake, thirty miles long, filled with trout; the picturesque Falls of the Yellowstone River, and many other fantastic freaks and wonders of nature. The park abounds with wild game, protected by United States troops, who guard the park.

COLORADO.

The greater part of Colorado is mountainous and desert land. Because of its high altitude and dry climate, it is much sought as a health resort. The state abounds in natural scenery of impressive grandeur. From the city of Denver may be seen the noted peaks, — Longs, Grays, and Pikes Peaks. The Garden of the Gods and Monument Park are celebrated for their natural beauty.

Where the land can be irrigated, it produces immense crops of grain and vegetables. The valley of the Gunnison River is noted for its fine peaches and other fruits. This state yields large

quantities of gold, silver, lead, and other minerals, which are an apparently inexhaustible source of wealth.

Denver, the "Queen City of the Plains," is the largest city and most important trade center of the surrounding country. Leadville is a famous mining camp. Colorado Springs is a noted health resort. Cripple Creek has rich gold mines, which are worked extensively.

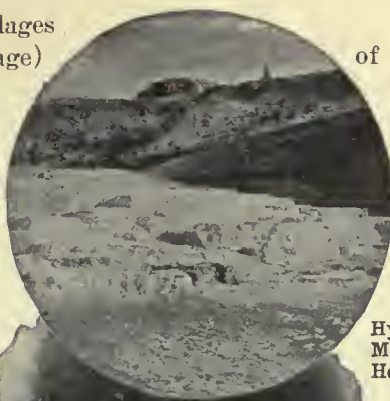
TERRITORY OF NEW MEXICO.

New Mexico was originally a part of Mexico, and many of the Mexican manners and customs still prevail. Santa Fé, one of the oldest towns in the United States, was settled by the Spanish in 1582.

The Indians of New Mexico live in villages called pueblos (a Spanish word meaning village). The houses are built of adobe, placed close together, the entrance to the house being by means of a ladder, and through a hole in the roof.

Stock-raising is the principal industry. The territory is rich in minerals and precious stones.

Albuquerque is the largest city, and is a railroad junction. Las Vegas has iron and woolen manufactures, and is noted for its medicinal springs.



Great Salt Lake is one of the natural wonders of this state. At one time it was a body of fresh-water as large as Lake Michigan, with an outlet through Red Rock Pass into Marsh Creek, and to the Shoshone and Columbia rivers. Its surface was about one thousand feet higher than it now is. Finally, the rainfall that supplied its waters became scant, and the outflow ceased. Since, it has dried away, until it is very shallow. Its water is very dense and buoyant.

Utah Lake is a considerable body of water, with an outlet into Salt Lake. The Great Salt Lake Valley and Utah Valley are extensive and fertile farming regions, made very productive by irrigation.

They produce grain, hay, very fine potatoes and other vegetables. Very fine fruit is also grown.

Liberty Cap,
Mammoth Hot Springs.



Gardiner River Cañon,
Yellowstone Park.

Narrow Gauge
Terrace,
Mammoth Hot
Springs.

IDAHO.

The soil is sandy in the greater part of the state, and only when irrigated can it be cultivated. The southern part is a volcanic region, where streams suddenly disappear into the earth. In the valleys, some grain is grown. The state has some very rich gold mines. The yield of silver is large.

Boisé, the capital, is in a fine agricultural and grazing region.

Next in importance to agriculture is the mining of silver and lead.

Located twelve miles from the lake is Salt Lake City. This is the seat of the noted Mormon Church, the followers of which live chiefly in Utah. Ogden is an important railroad town, with manufactures and sanatoriums.



Bath
Lake,
Mammoth Hot Springs.

NEVADA.

The greater part of this state is mountainous and desert land. Only in the valleys is agriculture carried on. Mining is the chief industry. It produces gold and silver in large quantities. Virginia City is a great mining center. Reno is an important town. At Carson City there are noted hot springs.

TERRITORY OF ARIZONA.

The climate of Arizona, in the southern portion, is very dry and hot.

In the cliffs of the Cañon of the Colorado River and its



Lower Fall of the
Yellowstone.

UTAH.

The greater part of the state consists of mountains and barren plateau. The rivers flow through deep, rocky cañons.



Mormon Temple, Salt Lake City.

tributaries are the remains of strange dwellings, once occupied by people called "cliff-dwellers." Here and there, on a shelf half-way down the side of a precipitous cañon, is a single dwelling; and again, in larger recesses, there are villages of many rooms. The stones of which the houses were built are set in clay mortar.

In the southwestern part of the territory there are good irrigated farms. Live-stock is raised. Mining of copper and silver is an important industry.

Phoenix and Tucson are the most important towns.

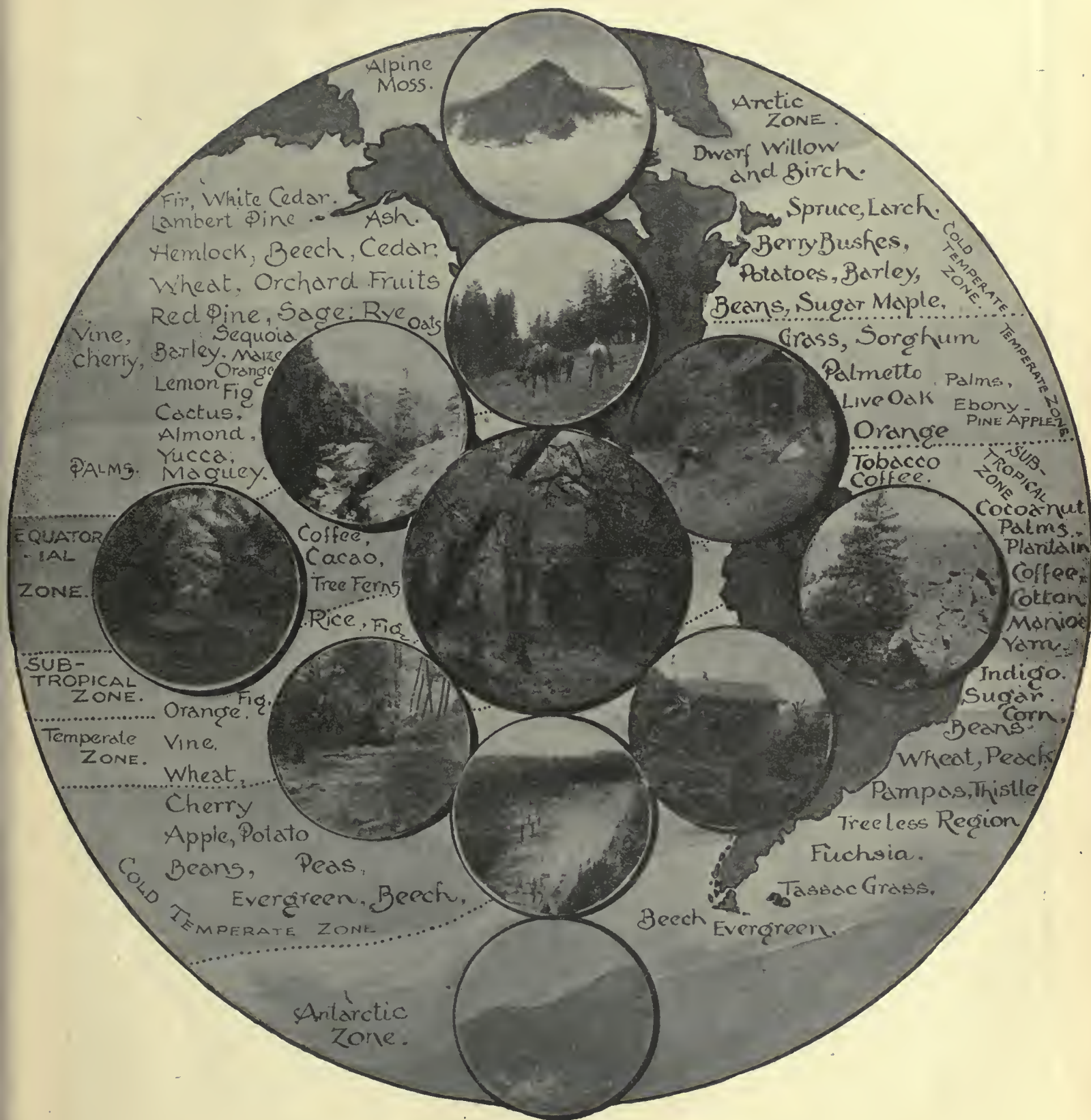
QUESTIONS ON THE MOUNTAIN AND PLATEAU STATES AND TERRITORIES.

What states and territories are crossed by the main range of the Rocky Mountains? What states and territory are in the plateau region? What is said of the natural scenery of this region? What is meant by the word "butte"? Mesa? What natural regions are comprised in these states and territories? What is the elevation of some of the peaks of the Rocky Mountains? What is said of the Great Basin?

What are the principal products of this region? What are the principal industries and products of Montana? What is said of its mineral products? Name its principal cities. What is the principal industry of Wyoming? Name its most important towns. What is said of Yellowstone National Park? What is said of the natural scenery of Colorado? What are the principal mineral products? Name some noted mountain peaks. Name some of its noted cities. What is the principal industry of the territory of New Mexico? What is the oldest town in the United States? Name two important towns. What is said of the surface of Idaho? What minerals are produced? What is the chief city? What is said of Great Salt Lake, in Utah? What are the industries of the state? For what is Salt Lake City noted? What is the principal industry of Nevada? Name some towns of the state. What is the climate of Arizona? What peculiar people once inhabited parts of that territory? What are the principal industries? Name two important towns. Describe the Yellowstone. Have you ever seen any pictures of the Yellowstone? Where? Do you examine pictures in the geography? What are they printed in a book for? Tell what you have learned from pictures. Examine the mountains below. Where is the highest mountain? Name some of the mountains you have seen. What is meant by sea-level? Do you know how far above sea-level your home is?



City of Havana, Cuba.



Vegetation Chart of North and South America.



SOUTH AMERICA.

SOUTH AMERICA is the continent forming the southern half of the New World. It is joined to the continent of



Outline Map of South America.

North America by the Isthmus of Panama, and stretches southward to Cape Horn.

Boundaries. South America is bounded on the north by the Caribbean Sea and the Atlantic Ocean, on the east by the Atlantic Ocean, and on the west by the Pacific. To the south it diminishes in width gradually, and terminates in a group of rocky islands.

Extent. South America, like Africa, forms a vast peninsula. It has an area of seven million square miles. The greatest length, from north to south, is 4,550 miles, and the greatest breadth, from east to west, 3,200 miles.

Natural Features. South America has three mountain systems: the Andean, the Parime, and the Brazilian. The Andes run in a north-and-south direction, through the entire length of the continent. The Parime system consists of several ranges, which rise between the low plains of the Orinoco on the north and the Amazon on the south. The

Brazilian system consists of numerous chains, some near the coast, and some quite a distance inland.

Plains. The interior of South America contains a series of great plateaus, and are naturally divided as follows: The llanos, or grassy plains of the Orinoco valley; the selvas, or forest plains of the Amazon valley; and the pampas, or plains of the Plata region.

Rivers. The slope of the continent of South America is generally toward the Atlantic; consequently the larger rivers flow into that ocean. The three great rivers are the Orinoco, the Amazon, and the Plata.

The Orinoco has a length of 1,500 miles, and waters the regions of the llanos. It has its source in the Parime Mountains.

The Amazon is 3,900 miles long, and has its source in the Andes.

The Plata is formed by the junction of the rivers Parana and Uruguay.

Climate. The climate of South America is warmer than that of North America. The tropical belt of the continent is not so hot as the corresponding region of Africa, and the configuration of the continent permits the rain-bearing winds from the Atlantic to pass over its surface.

Productions. South America has extremely rich and varied natural productions. The vast forests surpass in every respect those of any other portion of the globe. Medicinal plants, and shrubs valued for their use as beverages, gums and woods prized in manufactures, are all native to the continent. Birds of brilliant plumage, reptiles, and insects of endless variety, are characteristic of the abundant animal life of the continent. The puma and the jaguar represent the carnivora of the continent. The llama, vicuña, and guanaco are found in the high regions of the Andes. The tapir is peculiar to the continent, and the sloth, ant-eater, and armadillo are natives. The continent is extremely rich in minerals. The precious metals are abundant. Copper, tin, lead, and iron are widely distributed. Good coal, also, is found. The continent is rich in precious stones.

Population. The population of South America is about thirty millions. Probably a third are of European origin, Spanish or Portuguese. Spanish is the prevailing language, except in Brazil, which was colonized by the Portuguese.

Government. There are ten republics in South America: Brazil, Venezuela, Uruguay, Argentina, Chile, Peru, Ecuador, Colombia, Bolivia, and Paraguay. The European possessions are British, Dutch, and French Guiana.

QUESTIONS ON SOUTH AMERICA.

Locate South America. Describe its boundaries. Tell what you can about its natural features. What is said about the interior of South America? What is meant by the "selvas"? Name the three great rivers. What is the largest country in South America? Name some of the productions of the continent. What is the prevailing language?



Bay of Rio de Janeiro.

BRAZIL.

BRAZIL¹ is the largest country of South America. It has an area of 3,219,000 square miles.

Natural Features. The great natural features of Brazil are the vast plains, or selvas, which are watered by the largest rivers in the world.

Rivers. The Amazon is the chief river of Brazil. It is navigable for from 400 to 500 miles from the sea. It has numerous tributaries, the Rio Negro on the left, and the Madeira, Tapajos, Xingu, and Tocantins on the right, bank.

Climate. The climate of Brazil is thoroughly tropical, the whole country being within the torrid zone.

Productions. Diamonds and other precious stones, with gold, silver, copper, iron, and lead, are among the productions of Brazil; but its mineral wealth is inferior to the vegetable produce of the soil and to the great treasures of the forests. Coffee, sugar, and cotton are staple products. Rice, cocoa, maize, and tobacco are also produced. The manioc yields a kind of bread, the chief food of the native Indians.

Inhabitants. The population of Brazil is upwards of fourteen millions, more than a third of whom are of Portuguese descent. A large proportion of the population are negroes, who until recently were slaves, but are now citizens. The Roman Catholic religion is followed, but church and state have no connection.

Government. The United States of Brazil form a federal republic. The country became a republic in 1889, when Emperor Dom Pedro II. was deposed.

Cities. The capital of Brazil is Rio de Janeiro, which stands on the western side of a fine bay, one of the finest natural harbors in the world. The city has 800,000 inhabitants, and is the largest city in South America.

QUESTIONS ON BRAZIL.

Give an account of Brazil. What is the meaning of the word "Brazil"? What are the special features of Brazil? Describe the Amazon River. Describe the climate. Describe the productions of Brazil. What is the religion of the people of Brazil? Tell what you can about the government.

GUIANA.

GUIANA, so called from an Indian tribe, is divided into three parts. The most westerly part belongs to Great Britain, the central to Holland, and the eastern to France. Hence they are called British, Dutch, and French Guiana.

All Guiana has a tropical climate. The soil is fertile, and the natural wealth of the forests unbounded.

The commercial products are about the same as those of Brazil.

QUESTIONS ON GUIANA.

From what does Guiana derive its name? Into how many parts is Guiana divided? To what countries do these parts belong? What about the climate? the soil? the forests? the commercial products?

VENEZUELA.

VENEZUELA, which means "Little Venice," and so called from the Indian pile-houses, which the Spaniards found at the entrance to Lake Maracaibo, includes the greater part

of the basin of the Orinoco River. The area of Venezuela is estimated at 600,000 square miles, with a population of 2,250,000.

The surface of Venezuela is naturally divided into three distinct zones: the farming, the pastoral, and the forest zones. Sugar, coffee, cocoa, and cereals are produced in the first; in the second, cattle; and in the third, tonka beans, copaiba, vanilla, and caoutchouc grow wild. The gold-fields are rich, and there are copper and salt mines.

The government of Venezuela is republican in form.

The capital of Venezuela is Caracas, situated in a fertile mountain valley, 3,000 feet above the sea, and 12 miles distant from the shore of the Caribbean Sea.

QUESTIONS ON VENEZUELA.

Locate Venezuela. What does the name mean? What are the natural products? What is the government? Where is the capital?

COLOMBIA.

THE REPUBLIC OF COLOMBIA is in the northwest corner of South America. It has an area of 514,000 square miles, and a population of about 3,500,000, about half of whom are whites of Spanish descent. The rest are Indians. Primary education is free, but not compulsory.

The lowland portions of Colombia are covered with a dense forest, and have a very hot climate. The mountain regions are quite cool. The mineral wealth of the country is very great. Cocoa, coffee, cinchona bark, indigo, bananas, tobacco, cotton, and wheat and other cereals are produced.

The capital of the republic is Bogotá, which is situated in the high plateau of the Andes.

The chief place on the western side of the Isthmus of Panama is the city of Panama. The traffic across this narrow neck of land is maintained by means of a railway. De Lesseps, the French engineer who built the Suez Canal, attempted to build a canal at this point, connecting the town of Colón (Aspinwall), on the Atlantic side of the isthmus, with Panama. Two hundred and fifty million dollars were spent on this canal, but in 1889 work was discontinued.

QUESTIONS ON COLOMBIA.

Locate the republic of Colombia. Describe the lowlands. Describe the products. What is the capital? Locate the Isthmus of Panama. Tell what you can about the attempted construction of the great Panama Canal.

ECUADOR.

THE REPUBLIC OF ECUADOR¹ has an area of 120,000 square miles, and a population of 1,250,000.

The natural products are both rich and varied. Cocoa is the principal export.

The highest portions of the Andes are within Ecuador. Among them are the gigantic peaks of Chimborazo, 20,545 feet above the sea; Cotopaxi, 19,613 feet; and Antisana, 19,335 feet.

The capital of Ecuador is Quito, situated in the interior, at an elevation of 9,500 feet, and nearly under the line of the equator. The chief seaport is Guayaquil.

QUESTIONS ON ECUADOR.

Where is Ecuador? Describe the mountains of Ecuador. Name the capital. What is the chief seaport? What is the chief export from Ecuador?

¹ Ecuador Spanish, equator.

¹ Brazil was first discovered by Cabral in 1500, and was named by him *Terra de Santa Cruz* (the "Land of the Holy Cross"). The name "Brazil" is derived from the red Brazil wood, which the Portuguese compared to red-hot coals (*brasa*).

PERU.

THE REPUBLIC OF PERU is on the western side of South America. It has an area of 455,000 square miles, and a population of about three millions.

The climate of Peru varies with the most striking differences in its physical conformation. The mountain region is cold, the coast plain is hot and arid, and the plains on the east of the mountains are watered by abundant rains.

Peru has great natural advantages. The gold, silver, and quicksilver mines, once the richest in the world, are now worked only to a limited extent.

The forests produce gums, balsams, cinchona bark, vanilla, and sarsaparilla, and of recent years the production of sugar has largely increased.

An extensive system of railroads has been constructed, which greatly facilitates the development of the country.

The capital of the republic is the city of Lima, which is six miles distant from the coast of the Pacific. Lima was founded in 1535 by Pizarro.

Callao, on the adjacent coast, is the port of Lima, and the commercial outlet to the Pacific.

QUESTIONS ON PERU.

Locate the republic of Peru. Describe the climate. What are the natural advantages of Peru? Describe the railroads. Name the capital of Peru.

BOLIVIA.

THE REPUBLIC OF BOLIVIA, which derives its name from Simon Bolivar, is an inland state. It has an area of 567,000 square miles, and a population of about 2,250,000. The whites, as is the case in nearly all the countries on the western side of South America, are of Spanish descent.

The Andes form the border line between Peru and Bolivia. One of the peaks, Sorato, attains an elevation of 24,812 feet. The climate and products of Bolivia resemble those of Peru. The capital is Sucre, but the seat of government is usually at La Paz. La Paz is the chief commercial city.

QUESTIONS ON BOLIVIA.

Locate Bolivia. From what does the country derive its name? Name the natural products of Bolivia. What is the capital? Name the chief commercial city.

CHILE.

THE REPUBLIC OF CHILE is a narrow strip of country on the western coast of South America, between the Andes and the Pacific. It has an area of not less than 294,000 square miles, and a population of over three millions.

The climate is temperate and healthy, becoming generally cooler toward the south. The northern part of the country is nearly rainless.

The Chilean Andes include some of the highest summits of the mountain system, the loftiest peak being the peak of Aconcagua. The country is barren and sandy in the north, but fertile and productive in the south, where the people are engaged in farming. The country produces annually about twenty-seven million bushels of wheat, and eight million bushels of other cereals, besides fruits, vegetables, and a large amount of wine. Live animals, wool, hides, and

skins form the principal exports. Nitrates form the bulk of the mining products.

Santiago, the capital of Chile, is an inland city, midway between the Andes and the ocean. The chief seaport is Valparaiso, which is an important center of commerce.

QUESTIONS ON CHILE.

Where is the republic of Chile? What is the climate of the country? Name the mountains of Chile. Describe the soil. What are the chief products? Name the capital.

ARGENTINA.

THE REPUBLIC OF ARGENTINA¹ includes the group of states formerly known as the United Provinces of the Rio de la Plata. The area is about 515,700 square miles. The population is about 4,250,000. The Spanish language prevails throughout Argentina. The greater part of the republic is an immense plain. The Paraguay, Parana, and Uruguay rivers are the three great feeders of the Plata.

Vast herds of cattle and horses, and immense flocks of sheep, are reared on the immense pastures. Agriculture is progressing rapidly. Over 8,000 miles of railway connect the principal cities of the republic with Buenos Ayres, and a trans-Andean line connects the country with Santiago and Valparaiso, in Chile.

QUESTIONS ON ARGENTINA.

Locate the republic of Argentina. From what is the word "Argentina" derived? What is the language of the people of Argentina? Name the principal rivers. What are the products? Describe the railroads.

PARAGUAY.

THE REPUBLIC OF PARAGUAY is northeast of Argentina. The country has an area of 98,000 square miles, and a population of 330,000. The chief town of Paraguay is Asuncion. The most characteristic article of produce of Paraguay is the *yerba mate*, or Paraguay tea.

QUESTIONS ON PARAGUAY.

Locate the republic of Paraguay. Name the chief city. What is the most characteristic article of produce?

URUGUAY.

THE REPUBLIC OF URUGUAY lies to the north of the Plata. It has an area of 72,000 square miles, and a population of about 730,000. The capital is Montevideo. The rearing of cattle and sheep is the leading industry.

QUESTIONS ON URUGUAY.

Locate Uruguay. What is the capital? What is the leading industry?

THE FALKLAND ISLANDS.

THE FALKLAND ISLANDS, consisting of East Falkland and West Falkland, and about 100 smaller islands, form a British crown colony. The total area is about 7,500 square miles, and the population is about 2,000. The industries are pastoral.

QUESTIONS ON THE FALKLAND ISLANDS.

Where are the Falkland Islands? What is the population of these islands? What is the occupation of the people?

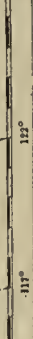
¹Argentina is from the Latin *argentum*, meaning silver.



EUROPE

Only the most important Railroad Lines are shown on this Map.

SCALE OF STATUTE MILES.

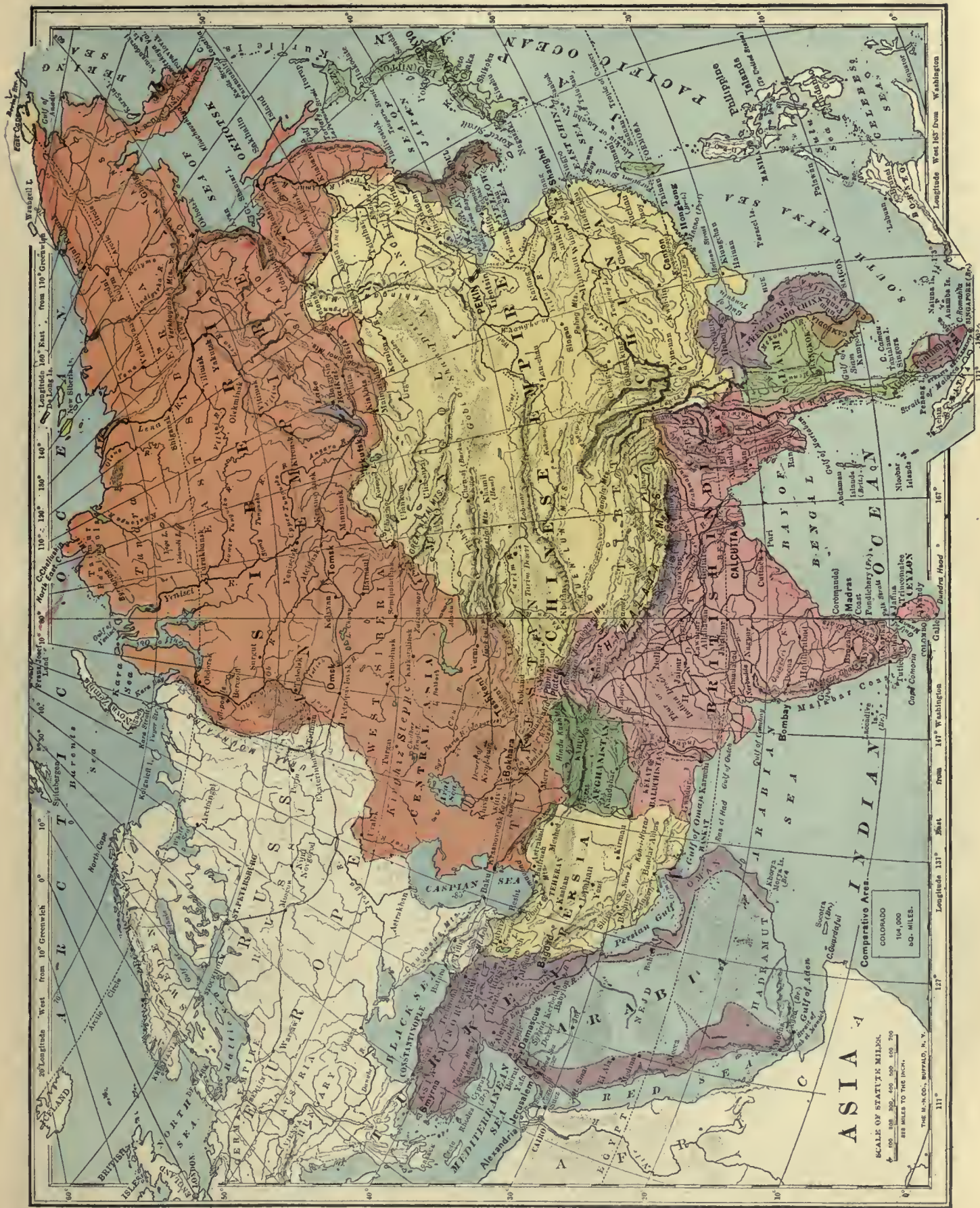


Longitude 75° East from 75° Greenwich

Longitude 25° West from 25° Greenwich 15°

Longitude 92° East from 92° Washington

Longitude 112° East from 112° Washington

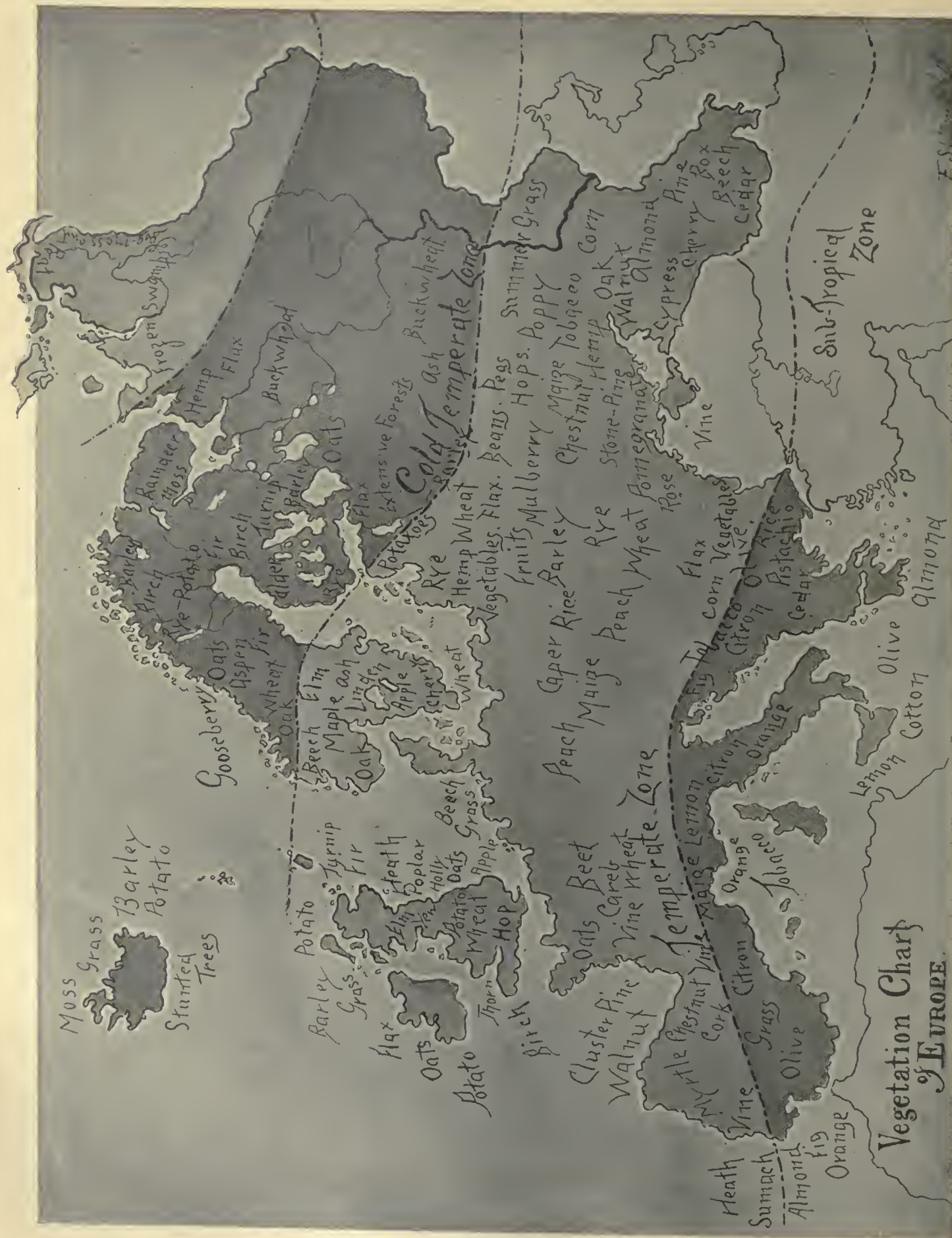


ASIA

SCALE OF STATUTE MILES.
0 100 200 300 400 500 600 700
800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000
800 MILES TO THE INCH.
THE N. N. CO., BUFFALO, N. Y.

COMPARATIVE AREA.
COLORADO
104,000
SQ. MILES.

Longitude 111° 112° 113° 114° 115° 116° 117° 118° 119° 120° 121° 122° 123° 124° 125° 126° 127° 128° 129° 130° 131° 132° 133° 134° 135° 136° 137° 138° 139° 140° 141° 142° 143° 144° 145° 146° 147° 148° 149° 150° 151° 152° 153° 154° 155° 156° 157° 158° 159° 160° 161° 162° 163° 164° 165° 166° 167° 168° 169° 170° 171° 172° 173° 174° 175° 176° 177° 178° 179° 180°



EUROPE.

EUROPE forms the northwestern portion of the Old World. It is an immense peninsula, jutting out from the western side



Outline map of Europe.

of Asia, and forming with it by far the largest continuous mass of land. It is entirely separated from Africa, on the south, by the Mediterranean Sea, and, on the west, from North America by the Atlantic Ocean.

Its northern boundary is the Arctic Ocean, and its eastern boundary the Caspian Sea, the river Ural, and the range of the Ural Mountains.

Europe,¹ next to Australia, is the smallest of the continents. It is about one fifth the size of Asia, one quarter that of America, and one third that of Africa. It is also about one fourteenth of the total area of the land surface of the globe, and one fifty-third of its entire surface.

The Seas. The principal inland seas, bays, and gulfs belonging to Europe are the Mediterranean,² the Sea of Marmora, the Black Sea, the Sea of Azof, the Caspian Sea, the Bay of Biscay, the English Channel, the Irish Sea, the North Sea, the Zuider Zee, the Baltic Sea, and the White Sea.³

The Mediterranean is the largest inland sea in the world, being over 2,400 miles long, and covering nearly one million square miles.

¹ Europe was the name first given to the land bordering on the Hellespont.

² Mediterranean, Latin, *medius*, the middle, and *terra*, land.

³ The White Sea is so named from its being covered with ice half the year.

The Black Sea has an area of 180,000 square miles, and receives the drainage of one third of Europe. It is subject to sudden and violent storms and dense fogs; hence its name of the "Black" Sea.

The Irish Sea, between Great Britain and Ireland, is comparatively deep, but subject to violent storms.

The Baltic Sea has an area of 135,000 square miles. Its waters are generally shallow, especially in the north, and are fresher than those of the Atlantic. Both the Baltic and the Mediterranean are nearly, if not entirely, tideless.

The Zuider Zee was formed by an eruption of the sea in the thirteenth century.

The most noted straits are the Strait of Dover, 21 miles long, connecting the North Sea with the English Channel; the Strait of Gibraltar, 8 miles long, which forms the entrance to the Mediterranean; the Bosphorus, or Strait of Constantinople, 1 mile long, leading from the Sea of Marmora into the Black Sea.

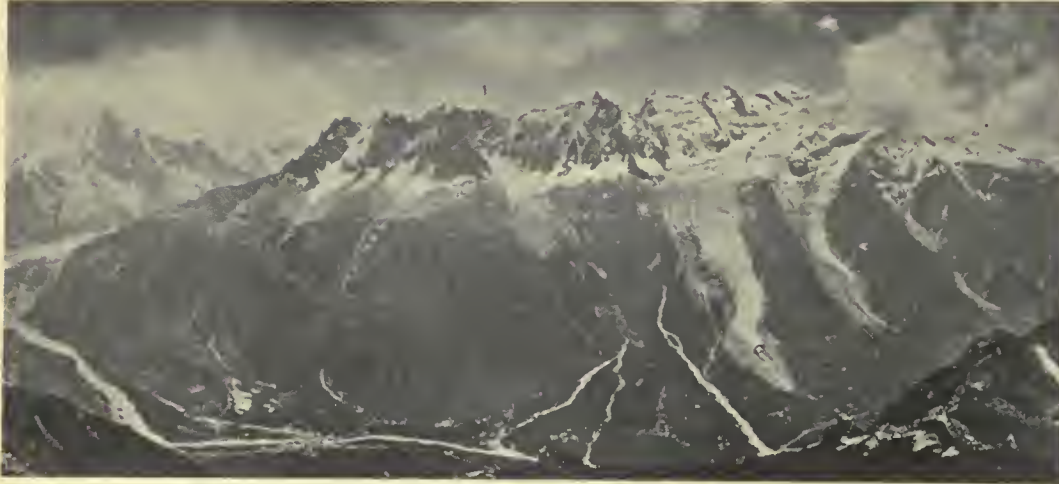
The most northerly point of the continent of Europe is North Cape; the most westerly point is Cape Roca, in Portugal; and the most southerly is Cape Tarifa, in Spain.

Peninsulas. Europe is distinguished by a great number of peninsulas, and all, except Jutland, point toward the



Gibraltar.

Gibraltar is derived from *Gibel el Tarik*, "the mountain of Tarik." The rock was first fortified by the Saracens in 711. Gibraltar was taken by the English in 1704. The Spaniards and French besieged it from July, 1779, to February, 1783, when the siege was abandoned as hopeless. The rock is of gray limestone formation, and contains many caves. The fortifications are formidable. Port-holes, so contrived that the gunners are free from harm, are cut at intervals of twelve yards. New guns have been placed in positions from the sea-wall to the summit. There are three forts.



The Alps. Mont Blanc.

south. The principal peninsulas are Norway and Sweden, Jutland,—which forms a part of Denmark,—the Spanish peninsula, Italy, the Morea,—which is a part of Greece,—and the Crimea, which is a part of Russia.

Islands. The most important of the islands of Europe are the British Isles,—England, Wales, Scotland, and Ireland,—which lie off the western coast of Europe, within the Atlantic Ocean. Iceland, which also lies in the Atlantic Ocean, is the third in point of size. The Azores, in the Atlantic, and the celebrated islands in the Mediterranean,—Sicily, Sardinia, Corsica, Candia, and Cyprus,—are all of large size.

Mountains. Europe exhibits a great variety of surface. The southern parts are mountainous. The middle parts are less elevated, and may be considered as hilly. The northwestern peninsula (Norway and Sweden) contains high mountains. But the whole of eastern Europe consists of a vast plain, diversified by very slight elevations.

The principal mountain ranges of Europe are as follows: The Alps, the Apennines, the Balkans, the Pyrenees, the Harz, the Ural, and the Caucasus.

The Alps, on the borders of Italy, France, Switzerland, and Austria, are the highest mountains in Europe. The upper portions of the Alps are covered with snow. The loftiest mountain among the Alps is Mont Blanc. It is 15,784 feet—nearly three miles—above the sea.

Volcanos. The active volcanos of Europe, with one exception, are situated on islands. Those on the mainland, with one exception, Vesuvius, are extinct. Vesuvius is located near Naples, and is 4,000 feet high.

Rivers. Every part of Europe is watered by running streams. Many of the rivers are navigable. The great water-shed of Europe may be approximately marked by a line drawn from Cape Tarifa to the Ural Mountains. From

this medial line the land slopes more or less regularly to the northwest and southeast.

The rivers of Europe may be grouped into three main systems, according as they flow directly or indirectly into the Arctic and Atlantic oceans, or into the Caspian Sea.

The rivers of the Arctic system include the Petchora, Mezen, Dwina, and Onega.

The principal rivers of the Atlantic system are the Thames, Severn, Tay, Shannon, Glommen, Seine, Loire, Rhone, Rhine, Elbe, Oder, Tagus, Tiber, Po, Maritza, Danube, Dniester, Dnieper, Don, and Kuban.

The principal rivers of the Caspian system are the Volga, the Kuma, and the Terek.

Lakes. The lakes of Europe are divided into three groups,—the Alpine, the Scandinavian, and the Russian.

The principal Alpine lakes are Lake Geneva, through which the Rhone flows; Lakes Neuchâtel, Zurich, and Lucerne, in the basin of the Rhine River; and Lakes Garda, Maggiore, and Como, in Italy.

There are numerous lakes in the Scandinavian peninsula,



The Alps. The Matterhorn.

the principal ones being Lakes Wenner, Wetter, and Malar, on the Swedish side, and Lake Mjosen is the largest in Norway.

The Russian lakes lie mainly in the region between the White Sea and the Gulf of Finland. The largest of the Russian lakes are Ladoga, 6,300 square miles, and Onega, 3,280 square miles.

Climate. Nearly the whole of Europe is in the north temperate zone. It is therefore free from the extremes of heat and cold to which other divisions of the globe are subject. There is, however, considerable difference in tem-

perture between the north of Europe and the south. The countries of southern Europe are hot; those of central Europe, moderately warm. The northern regions are cool, and the extreme north is intensely cold. This is in accordance with the general laws of climatic change.

Rainfall. A greater quantity of rain falls in the south of Europe than in its middle portions, and more in its middle latitudes than farther north. Warm countries, in general, have more rain than cold countries. The average number of days in the year upon which rain occurs is fewest in the south of Europe, and increases toward the north.

Minerals. Europe is richly supplied with the most useful minerals and metals,—coal, iron, etc.,—and also produces considerable quantities of the precious metals.

Wild Animals. Many of the wild animals that formerly existed have been exterminated. The wild ox still exists in Russia; the fallow deer and the red deer belong to middle Europe; the chamois and the ibex are native to the high mountain region of the Alps, but are now few in number.

Domestic Animals. The sheep, ox, pig, goat, horse, and dog exist in every part of Europe.

Birds. The web-footed tribes, such as geese and ducks, are most numerous in high latitudes. The stork, the crane, the heron, the pelican, and the spoonbill belong to the west and the south of Europe. The vulture and eagle tribes are most numerous in the high mountain region of the south. The owl is found in every part of the continent.

Reptiles. Europe is singularly free from venomous reptiles. Lizards are common in the countries that border on the Mediterranean, and the chameleon is found in Spain.

Fish. Fish of nearly every variety abound in the seas and rivers of Europe, and are used extensively as food for man.

Insects. The most useful member of the insect tribe, the honey-bee, is propagated in most European countries. The silk-worm is reared in the south of Europe. Flies, as well as other familiar and harmless insects, are common in Europe.

Inhabitants. The population of Europe, amounting to a total of 350,000,000 people, consists, for the most part, of what is known as the Caucasian, or Aryan, race. Nine tenths of the whole belong to this stock of nations. The nations of southern Europe are distinguished by their darker complexions and generally slender frames. Robust frames, fair complexions, light eyes and hair, are marks of the people of the middle and north of Europe.

Language. The languages of Europe, with the exception of the Turkish, are of Aryan origin, and may be classed

under four principal heads, corresponding to the four great races of the continent,—the Celtic, the Teutonic, the Greek-Latin, and the Slavonic.

Religion. The Protestant religion predominates in the Teutonic countries, the Roman Catholic in the Romanic countries, except Greece, and the Greek Church in the Slavonic countries. Of the 350,000,000 inhabitants of Europe, 150,000,000 are Roman Catholics, 80,000,000 belong to the Greek Church, 75,000,000 are Protestants, 10,000,000 are Mohammedans or heathens, and 7,000,000 are Jews.

Education. All the great nations of Europe are well advanced in education. Schools, colleges, and universities are found in every European state. There are more people unable to read and write in Russia and in Hungary than in any other part, and fewest in Great Britain and Ireland and Germany.

Government. The government of every country in Europe, except France and Switzerland, is monarchical in form, and is despotic in Russia and Turkey, but limited in the United Kingdom and other countries. France and Switzerland are republics, as are the small states of San Marino and Andorra.

Political Divisions. Europe is politically divided into—

FOUR EMPIRES: Russia, Germany, Austria-Hungary, and Turkey.

ELEVEN KINGDOMS: Great Britain and Ireland, Sweden and Norway, Denmark, Holland, Belgium, Portugal, Spain, Italy, Greece, Roumania, and Servia.

TWO REPUBLICS: France and Switzerland (and the minor protected republics of San Marino and Andorra).

FOUR PRINCIPALITIES: Montenegro, and the minor principalities of Luxembourg, Monaco, and Liechtenstein.

The countries of Europe may be also arranged according to their "rank," or power, in the following order:—

1. Great Britain, Germany, France, Austria-Hungary, Russia, and Italy. These are the "SIX GREAT POWERS" of Europe.

2. Sweden and Norway, Spain.

3. Turkey, Belgium, Holland, Denmark, Portugal, Switzerland, Greece, Roumania, Servia, and Montenegro.

QUESTIONS ON EUROPE.

How does Europe compare in size with the other continents? Describe some of the principal natural features of Europe. What are its principal mountain ranges? What is said of the Alps? Describe some of the principal river systems of Europe. Name and describe the inland seas. Tell what you can of the Mediterranean Sea. What does the name "Mediterranean" mean? State some peculiar fact about the Zuider Zee. For what are some of the principal European rivers noted? What varieties of climate has Europe? Why is the climate of



Italy. Lake Como.

southern Europe milder than that of northern Europe? What is said of the minerals of Europe? What is said of the animals of Europe? What is said of the languages of Europe? Compare the languages of Europe with that of the United States. What are the forms of government in Europe? Name the six great powers of Europe.

THE BRITISH ISLES.

THE BRITISH ISLES consist of Great Britain, Ireland, and a number of small islands.

GREAT BRITAIN consists of England, Wales, and Scotland, and is the largest island in Europe, being 600 miles in length, and having an area of nearly 89,000 square miles.

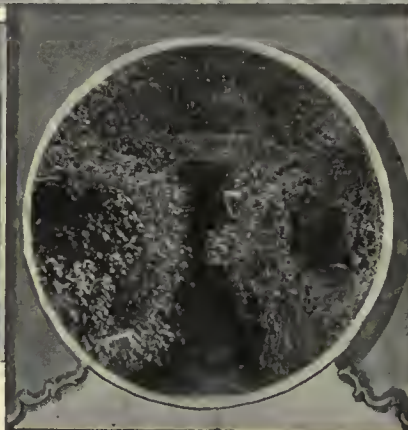
IRELAND is west of Great Britain, and is about one third the size of the latter.

The principal islands adjoining Great Britain and Ireland are the Isle of Wight, off the south of England; the Orkney and Shetland islands, off the north, and the Hebrides off the west, coast of Scotland; Anglesey and the Isle of Man, in the Irish Sea; Valentia Island, Achil Island, and the Aran Islands, off the west coast of Ireland.

London Bridge. Diamond Jubilee Procession.



The Lakes of Killarney.



Witches' Stairway.



Windsor Castle, from the Thames.

THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND is formed by the political union of England, Wales, Scotland, Ireland, and the adjacent islands.

THE BRITISH EMPIRE is formed by the United Kingdom of Great Britain and Ireland, and its numerous colonies and possessions in all parts of the world.

The area of the British Empire is upwards of eleven million square miles, or about one sixth of all the land of the globe.

The population is about three hundred and eighty millions, or about one fifth of the total inhabitants of the world.

ENGLAND AND WALES.

ENGLAND¹ AND WALES constitute the most important portion of the British Isles.

Boundaries. England is divided from Scotland by the Tweed River, the Cheviot Hills, and the Solway Firth; from Ireland by the Irish Sea and St. George's Channel; from France by the English Channel and the Strait of Dover; and from Belgium, Holland, and Germany by the North Sea.

Extent. The greatest length of England—from Berwick to the Lizard—is 423 miles. England embraces an area of 50,823 square miles, and Wales, 7,363 square miles.

¹ England, *Angle-land*, "the land of the Angles." The Angles were the most numerous of the Saxon invaders of Britain. Anciently Albion; so called from the white cliffs of Kent.

Coasts. The coasts of England are more or less irregular, and exhibit a great number of capes and inlets.

Mountains. England has a gently sloping or undulating surface, rising, in some places, into lofty hills. Wales is very mountainous. The highest elevation in England is Seaw Fell, reaching 3,208 feet above the level of the sea.

Plains. The York Plain, the Cumbrrian and Cheshire plains, the Central Plain, the district of the Fens, the Eastern Plain, the Valley of the Severn, and the Valley of the Thames are the largest.

Rivers. The longest rivers, with one exception, are on the eastern side of England, and flow into the North Sea. The main slope of the country is therefore toward the east. The Thames¹ is one of the three longest rivers in the British Isles, and ranks first in order of importance, since London, the metropolis of the empire, is built upon its banks. It is navigable for the largest vessels nearly to London Bridge, and for smaller craft to

Lechlade, 160 miles from the sea. The Severn is the longest river in Britain. It drains an area of 4,500 square miles, and is navigable 170 miles from the sea.

Lakes. The largest English lake is Windermere, 14 miles long and 1 mile broad.

Climate. The climate of England is temperate and healthful. The frequent occurrence of rain and the general moisture of the atmosphere are due to the insular position of Britain. The mean temperature of summer in London is 63.8°; of winter, 37.3°. The mean annual temperature is 50.55°. The average annual rainfall at London is 24 inches.

Minerals. The minerals most necessary to man—coal and iron, copper, lead, zinc, and tin—are abundant in England and Wales.

Plants and Animals. The cultivation of the land has reduced the size of the forests, and the wild animals have practically been banished. Among the trees, the elm, birch, poplar, alder, yew, and Scotch fir are native to the soil. The apple, the hazel-nut, the willow, the thorn, the blackberry, are also found in England.

Inhabitants. England and Wales have more inhabitants to the square mile than any other country in Europe, except Belgium. The population is about twenty-nine millions, or about four hundred and ninety-eight people to the square mile.

The people of England belong to the Teutonic race; those of Wales and Cornwall are of Celtic origin. Of the Celtic

¹ Thames, *Thamesis*, "the broad Isis."

raee, the Gaels were evidently the first settlers in the south of England. Of the Teutonic raee, the Angles, Jutes, and Saxons first invaded Britain. Later, the Danes and Normans also settled in England. These elements formed the foundation of the English nation.

The language is mainly derived from the Anglo-Saxon, but with a large admixture of Latin, Greek, Norman French, and other foreign words.

commerce of the sea. Sugar, coffee, tea, tobacco, spices, wines, hides, skins, tallow, wool, raw cotton, corn, and flour are imported from different countries; and cotton, woolen, linen, and silken goods, iron and steel, tin, coal, machinery, earthenware, stationery, books, and other manufactured products are the exports.

Cities. Three fifths of the people in England and Wales live in cities and towns. One

Ben Lomond



Old Bridge, Limerick.



Brickeen Bridge



Grammar School, Stratford-on-Avon.



Old Village of Shanklin, Isle of Wight.



On the Clyde.



Industries. Manufacture and trade are the great national industries of England. Its agricultural products are not equal to the amount that the people need for food. There is, however, considerable farming and stock-raising. Cotton, wool, and iron are the three great staples that are manufactured. Besides these, there are manufactures of silk and linen, hosiery and lace, leather, earthenware, glass, watches and clocks, and paper.

Internal Communication. Good roads and well-kept canals render inter-communication easy in every part of the country, England being particularly noted for good roads. There are 25,000 miles of turnpike roads, and more than 100,000 miles of cross roads.

Railways. From London railways extend in every direction. The railways of England carry over six hundred million passengers and great quantities of freight each year.

Commerce. The import of raw material and the export of manufactured goods make England the ruler of the

sixth of the total population lives in London, Liverpool, and Manchester.

The ten largest towns in England and Wales are the following: London, with a population of 5,500,000; Liverpool, 730,000; Manchester and Salford, 703,000; Birmingham, 429,000; Leeds, 368,000; Sheffield, 324,000; Bristol, 222,000; Bradford, 216,000; Nottingham,

212,000; Hull, 200,000.

Government. The government is constitutional, and the monarchy is limited and hereditary.

The legislative power is divided between the sovereign and the House of Lords and the House of Commons.

The annual revenue is derived from customs, excise, stamps, and taxes.

The British army is small, compared with the large armies of the Continental powers, but the navy is the largest and most powerful in the world.

Religion and Education. There is religious equality and freedom of worship in the United Kingdom. Elements

tary education is compulsory, and was made free in Scotland in 1889, and in England and Wales in 1891.

Higher education is provided by the universities of Oxford, Cambridge, Durham, Victoria, and London, in England; Edinburgh, Glasgow, St. Andrews, and Aberdeen, in Scotland; the Royal, the Catholic, and the Dublin universities, in Ireland; and the University of Wales, incorporated in 1894. There are university colleges at London, Liverpool, Manchester, Leeds, Birmingham, Bristol, Newcastle, Nottingham, and Sheffield, in England; at Cardiff, Bangor, and Aberystwith, in Wales; and Dundee, in Scotland. In Ireland, higher education is given in the Queen's colleges at Belfast, Cork, and Galway, and at other institutions.

THE BRITISH EMPIRE.

The British Empire, besides Great Britain and Ireland, has a vast number of colonies, protectorates, dependencies, and territories in every part of the globe.

IN EUROPE —	AREA IN Sq. Miles.	POPULATION.
The United Kingdom.....	120,973	38,104,973
England and Wales.....	58,310	29,002,505
Scotland.....	29,785	4,034,750
Ireland.....	32,583	4,706,162
The Isle of Man.....	220	55,608
The Channel Islands.....	75	92,234
Gibraltar.....	2	25,755
Malta.....	117	165,662

IN ASIA —	AREA IN Sq. Miles.	POPULATION.
India.....	1,587,104	286,696,960
British India.....	944,108	220,530,000
Feudatory States.....	642,996	66,107,860
Ceylon.....	25,364	3,008,239
Cyprus.....	3,584	209,291
Aden and Perim.....	70	41,910
The Straits Settlements.....	1,472	506,577
British North Borneo.....	30,000	150,000
Labuan.....	31	6,000
Sarawak.....	50,000	300,000
Brunei.....	3,000	
Hongkong.....	29	221,441

IN AFRICA —	AREA IN Sq. Miles.	POPULATION.
Cape Colony.....	221,311	1,527,224
Natal.....	20,460	543,913
Basutoland.....	9,720	218,902
Zululand.....	8,900	180,000
Bechuanaland.....	222,000	
Zambesia.....	500,000	
British East Africa.....	1,000,000	13,500,000
North Somali Coast.....	30,000	240,000
Gambia.....	2,700	50,000
Sierra Leone.....	15,000	180,000
Gold Coast.....	46,000	1,905,000
Lagos.....	1,071	100,000
Niger Coast Protectorate.....		
Niger Territories.....	500,000	20,000,000
Ascension.....	35	360
St. Helena.....	47	4,116
Mauritius.....	705	380,000
Zanzibar and Pemba.....	985	377,986
Socotra.....	1,382	10,000

IN AMERICA —	AREA IN Sq. Miles.	POPULATION.
Dominion of Canada.....	3,456,383	4,829,411
Newfoundland.....	42,200	197,335
British West Indies.....		
Jamaica.....	4,424	639,491
The Bahamas.....	5,450	48,000
The Leeward Islands.....	701	129,760
The Windward Islands.....	508	135,976
Trinidad and Tobago.....	1,868	228,757
Barbados.....	166	182,322
The Bermudas.....	20	15,884
British Honduras.....	7,560	31,471
British Guiana.....	109,000	284,887
Falkland Islands.....	6,500	1,789

IN AUSTRALASIA —	AREA IN Sq. Miles.	POPULATION.
New South Wales.....	310,700	1,134,207
Victoria.....	87,884	1,140,411
Queensland.....	668,497	393,718
South Australia.....	903,690	315,048
Western Australia.....	1,060,000	90,000
Tasmania.....	26,215	146,667
New Zealand.....	104,471	626,830
British New Guinea.....	88,000	150,000
Fiji.....	7,740	121,180

SCOTLAND.

SCOTLAND¹ is the northern portion of the island of Great Britain.

Boundaries. Scotland is bounded on the north and west by the Atlantic Ocean; on the south by England and part of the Irish Sea; and on the East by the North Sea. It has an area of 30,000 miles.

Coasts. The coasts of Scotland are more indented than those of England. The smaller inlets are called lochs. There are many capes, inlets, and channels.

Scotland has about 700 islands.

Mountains. Scotland is divided into the Highlands and the Lowlands. The Lowlands are by no means level, but embrace numerous hilly tracts. Ben Nevis, 4,406 feet above the sea-level, is the highest mountain, not only in Scotland, but in the British Isles.



Ben Nevis, Scotland.

Rivers. The principal rivers flow into the North Sea. The Tweed is 96 miles long, and is noted for its salmon fisheries. The Dee is 87 miles in length. The Clyde, which is navigable to Glasgow, is 96 miles long.

Lakes. Scotland is noted for its beautiful lakes. Loch Lomond is known as "the pride of the Lakes," exceeding all the others in extent and beauty. Loch Katrine, 19 miles long and $\frac{3}{4}$ mile broad, is the scene of Scott's "Lady of the Lake."

Climate. The climate of Scotland is colder than that of England. The winters are more severe, and the rains more abundant. The rainfall is from 22 to 33 inches on the east coast, and from 30 to 44 inches on the west coast.

Natural Productions. The natural productions are about the same as those of England. Clydesdale is noted for a fine breed of horses, and the Shetland Islands for the hardy Shetland ponies.

¹ Scotland, the "land of the Scots." The Scots were a Celtic tribe from northern Ireland, who passed over and settled in Cantire in 503. In 843 the king of the Scots ruled over nearly the whole of Scotland, north of the Clyde and Forth.

Inhabitants. The people of the Highlands and the Lowlands are two distinct races, speaking different tongues. The language of the Lowlands resembles the English, and that of the Highlands is a Celtic dialect, called the Gaelic.

Industrial Pursuits. Scotland is principally a manufacturing and commercial country, and farming is practiced with great skill in the Lowlands. Ship-building is extensively carried on at Glasgow.

Commerce. The commerce of Scotland resembles that of England.

Counties and Towns. Scotland is divided into 33 counties. The principal towns are Edinburgh, which is the seat of one of the Scottish universities, and the literary metropolis of the north. Glasgow is the center of the cotton manufacture, the iron trade, and the foreign commerce of Scotland. Aberdeen, between the rivers Dee and Don, is also an important city, and is noted for its commerce and distinguished for its university.

IRELAND.

IRELAND,¹ the second largest island of the British Isles, lies west of Great Britain.

Boundaries. Ireland is bounded on the north, west, and south by the Atlantic Ocean, and on the east by the North Channel, the Irish Sea, and St. George's Channel.

Coasts. The entire length of coast line, including the larger inlets, is about two thousand miles, or one mile of coast to every fifteen square miles of area. It has numerous capes and inlets, and a number of small islands.

Mountains. Ireland is level in the interior, but has high mountain tracts adjoining various portions of the coast. The highest mountains are in the southwest, known as the Kerry Mountains. The highest peak is 13,414 feet.

Plains. A nearly level plain extends across the middle of the island from Dublin to Galway Bay. In some parts of the plain are extensive bogs.² The total extent of the bog lands is about 5,000 square miles.



An Irish Cottage of To-day.

Rivers. The island abounds in inland waters. The principal rivers are the Bann, the Lagan, the Barrow, the Liffey, and the Shannon. Dublin, the metropolis of the island, is on the banks of the Liffey. The Shannon is the longest river in Ireland, and is navigable 213 miles from the sea.

Lakes. There are a number of beautiful lakes in Ireland. The Lakes of Killarney, having an area of ten square miles, are celebrated for their beautiful scenery.

Climate. The climate of Ireland is more moist than that of England. This gives more verdure to the fields and a superior freshness and brightness to the vegetation. The winters are nearly always mild. The average rainfall at Cork is 40 inches.



The Wishing-chair, Giant's Causeway.

Natural Productions. Ireland is inferior to England and Scotland in the production of coal, but produces copper, lead, iron, and other minerals, and a high grade of marble and building-stone.

Inhabitants. The population of Ireland in 1891 was four and three quarter millions,—but little more than half its population in 1841. Vast numbers of the Irish people emigrated to other lands, and famine, with its attendant sickness and suffering, tended to reduce the population.

Industrial Pursuits. Ireland is chiefly an agricultural country. Cattle and pigs and farm produce are its chief industrial wealth.

Ireland is divided into four provinces; namely, Leinster, Ulster, Munster, and Connaught.

Cities. Dublin is the capital of Ireland. It has a fine artificial harbor, fine public buildings, and is the seat of several universities. Belfast is the seat of the linen manufacture of Ireland. Limerick is rich in historical memories. It is built on both sides of the river Shannon. It was once the stronghold of the Roman Catholic cause, and sustained two great sieges in behalf of James II. in 1690. Cork is the third city of importance, in regard to population. It has a great foreign trade.

HISTORICAL NOTE.

Britain first became known to the other peoples of Europe through the Phœnicians. The Romans under Cæsar invaded Britain in 55 B. C., and remained there until the fifth century. The Teutonic (that is, the

¹ Ireland (Gaelic), "western isle." The native name is Erin. The Romans called it Hibernia. To the Phœnicians it was known as Ierne. The ancients called it the "Emerald Isle," on account of its verdure.

² Of the bogs of Ireland, the black is the most valuable for fuel. It is not so capable of being reclaimed as the red and brown bogs.

German) tribes came across the North Sea to Britain on the departure of the Romans. These invading tribes included the Angles, Saxons, and Jutes, and the country was called "Angle-land," from the name of the principal tribe; hence the name "England." The compound name, "Anglo-Saxon," as applied to the language and people, is a modern formation. In 1066, England was invaded by the Normans under William the Conqueror, Duke of Normandy. He subjugated the country, and for a long time two distinct languages were spoken in England. The speech of the common people was Anglo-Saxon, while the official language was Norman French. From the union of the two tongues our modern English is derived. Wales was united to England in the thirteenth century. Scotland was united to England in 1603, when James VI. of Scotland, son of the unfortunate Mary, Queen of Scots, succeeded Elizabeth on the English throne. The modern history of Great Britain and Ireland begins at this time. James dispossessed the turbulent native Irish chiefs of their territory in Ulster, and peopled the northeastern part of the province with Lowland Scotch and English colonists, but Ireland, as a whole, was never thoroughly subdued until Cromwell overran the island. Complete political union of Ireland with Great Britain was accomplished in 1801.

QUESTIONS ON THE UNITED KINGDOM.

Of what do the British Isles consist? Of what does Great Britain consist? Of what does the British Empire consist? What is said of the surface of Great Britain? What is said of its mineral wealth? Of its agriculture? Of its stock-raising? Of its manufactures? Describe the government of England. What is the longest river in Great Britain? Which is the most noted river? Describe the climate of Great Britain. What is said of the people of Great Britain? What is the number of the inhabitants of England and Wales? About how many people are there to the square mile? Describe the language of England. Name some of the chief towns of England. Name some of the imports and exports of England. Name several of the principal universities in England. Name a few of the most important colonies of the British Empire. Name some of the industries of Scotland. Describe some of the natural features of Scotland. Name two of its principal cities, and state for what each is noted. Describe Ireland. What is the meaning of the name "Ireland"? Why did the ancients call it the Emerald Isle? What is meant by the "hogs" of Ireland? Name several of the rivers of Ireland. What lakes in Ireland are celebrated for their beauty? What are the industrial pursuits of the people? When were the English and Scottish kingdoms united? What was the name of the Scottish king who succeeded to the English throne? Who was the mother of this Scottish king? How did he more closely unite Ireland with Great Britain? Who thoroughly subdued Ireland?

GERMANY.

GERMANY is in central Europe.

THE GERMAN EMPIRE is a federal union of twenty-five states and the imperial territory of Alsace-Lorraine.

Boundaries. Germany is bounded on the north by the North Sea, Denmark, and the Baltic Sea; on the south by Switzerland and Austria; on the east by Austria and Russia; and on the west by France, Belgium, and Holland.



Extent. The total area of the German Empire is 211,000 square miles. Its greatest length, from southwest to northeast, is about 850 miles; and its greatest breadth, from north to south, about 580 miles.

Natural Features. Germany is, for the most part, level, but it has a number of mountain ranges. The most noted of these ranges are the Harz Mountains; the Schwarz Wald, or Black Forest, which separates the basins of the Rhine and Danube; and the Thuringer Wald, between the basins of the Elbe and Rhine. The height of the ranges in central Germany seldom exceed 3,000 feet. The highest point in Germany, north of the Danube, is 5,274 feet. The peak of Zug-spitz, in South Bavaria, is 9,716 feet high.

Rivers. The Rhine is the principal river in Germany. Its sources and upper course are in Switzerland, and the Neckar and Main are two of its tributaries. The Rhine is navigable to the Falls of Schaffhausen. Between Mainz and Bonn the river is famous for its beauty, and the Falls of the Rhine are much admired. Other important rivers are the Ems, Elbe, Weser, Oder, and Danube.

Climate. In the uplands the winters are severe, snow often lying on the ground from October to May; but in the lower river valleys the climate is delightful, and the vine grows to perfection.

Natural Productions. The forests are extensive, and give shelter to wild animals, such as the wolf, wild boar, and deer. The minerals include coal, with iron and other metals, chiefly found in the Rhine province and in the Harz Mountains. Precious stones, and some gold, silver, and copper, are also found. There are many famous mineral springs, of which the principal ones are Baden-Baden, Selters, Wiesbaden, and Aix-la-Chapelle.



The Reichstag Building, Berlin.



City of Oberammergau.



The Cologne Bridge.

Lakes. The largest lake in Sweden is Lake Weener, which is the third largest lake in Europe. It has an area of 2,136 square miles. The lakes of Norway are said to number 30,000, while in Sweden they cover nearly one tenth of the entire area.

Climate. The atmosphere of both Sweden and Norway is dry and healthful. The winters are long. The summers, while short, are very hot and dry. Bergen is one of the wettest places in Europe. The mean rainfall is 82 inches.

Productions. The most valuable products of Scandinavia are its mines, its fisheries, and its forests. The bear, wolf, fox, lynx, and the lemming, or field-rat, are the wild animals, while the reindeer is used as a domestic animal.

Inhabitants. The population of Sweden numbers about five millions, and that of Norway over two millions. The people are of the Teutonic race.

Industries. In the southern part of Sweden there is considerable farming. The people of both countries, however, are excellent seamen. The principal ports are Stockholm, Gottenborg, Christiania, and Bergen. There are about 6,400 miles of railways in the country, and the Gota Canal, in Sweden, consists of a waterway between the North Sea and the Baltic.

Government. Sweden and Norway are independent kingdoms, under the same ruler.

Education. Education is free and compulsory, and public education is well advanced in Sweden.

Cities. Stockholm is the capital of Sweden, and the seat of government of the two countries. Christiania is the capital of Norway, and lies at the head of a long fiord called by its name.

HISTORICAL NOTE.

The Scandinavian countries were the home of the Northmen who made conquests in England, France, and other European countries. Authentic history of these countries begins in the ninth century, when the many little kingdoms of Norway were united under one king. In the fourteenth century, Norway, Sweden, and Denmark were united, but in 1523 Sweden became independent. In 1814 Norway was ceded to Sweden.

QUESTIONS ON SWEDEN AND NORWAY.

Locate Norway and Sweden. How are they governed? What peninsula do they compose? Why is the cultivation of the soil not very profitable? What is the chief industry? What is the religion of the people? What is the capital of Norway and Sweden? Name the other principal cities.

SWITZERLAND.

SWITZERLAND¹ is an entirely inland country, and is bounded on the north by Germany, on the east by Austria, and on the west by France.

Extent. Its greatest length from east to west is 208 miles, and its breadth from north to south is 156 miles. Its area is nearly 16,000 square miles.

Mountains. Switzerland is a mountainous country. Two thirds of its surface consist of high mountains and intervening valleys, the other third being an elevated plain. The Alps

for their beauty. The Pennine Alps contain Mont Rosa, 15,217 feet high, and the Matterhorn, 14,705 feet high. The passes of the great St. Bernard, 8,120 feet; and Matterjoch, 11,014 feet high. The Lepontine Alps contain Mont Leone, 11,696 feet; Mont St. Gothard, and the passes of the Simplon, 6,595 feet, over which Napoleon constructed his military road in 1802. Besides these there are the Rhetian Alps and the Bernese Alps.

Rivers. The Rhine and the Rhone are the two most important of the Swiss rivers.

Lakes. Switzerland abounds in beautiful lakes. The principal ones are: Geneva, 230 square miles; Lake Constance, 183 square miles; Lake Neuchatel, 93 square miles; and Lake Lucerne, 40 square miles.

Climate. The elevation of the country renders the climate of Switzerland cold, but the shores of Lake Geneva are especially distinguished for their warm and equable temperature. In the higher regions, however, the winters are long and severe. In some of the deep and narrow valleys, many of the inhabitants are afflicted with cretinism and goiter.

Products. All the ordinary domestic animals of Europe are found. The wild animals include the bear, wolf, lynx, and chamois; and the birds found are the eagle and the bearded vulture. The vine flourishes in the lower valleys, and wheat and other grains are also grown. Timber is abundant on the mountain sides. There are numerous mineral springs, especially in the canton of Berne, and coal, iron, copper, lead, and rock-salt are to be found.

Inhabitants. Switzerland has a population of about three millions. The Swiss are not so much a distinct nation as an offshoot from Germany, France, and Italy. There is no Swiss language. In some cantons the people speak French; in some, the German language; and in others, the Italian language. They are a frugal and industrious race. In the mountain regions they are chiefly shepherds and herdsmen, and in the level parts of the country considerable manufacturing is done. A vast number of watches, musical boxes, and various articles of jewelry are produced. Geneva is the principal seat of this manufacture.

Government and Education. Switzerland forms a federal republic. Education is compulsory and highly advanced. Higher education is given at the universities of Basel, Berne, Geneva, and Zurich.

Cities. The city of Berne ranks as the capital of the Swiss Confederation. Geneva lies at the foot of the beautiful lake called by its name, where the Rhone issues from its waters. Zurich is distinguished for its literary culture.

HISTORICAL NOTE.

Switzerland was held by the Romans as a defense against the Teutonic tribes. It formed part of the empire of Charlemagne, and in the eleventh century it was joined to the German Empire; but the Swiss rebelled against the despotic rule of the Germans. After many wars, the independence of the country was recognized in 1648.

QUESTIONS ON SWITZERLAND.

Locate Switzerland. For what are its natural features noted? Tell what you can about the Alps. Describe some of its lakes. Describe the climate of Switzerland. Describe the products of the country. Describe the people and their occupations. How is the country governed?



¹Switzerland, French, *La Suisse*; German, *Schweiz*, from the forest canton of Schwyz.

HOLLAND.



HOLLAND,¹ or THE NETHERLANDS, is a small country of western Europe, bordering on the North Sea. It has an area of 12,648 square miles. Its greatest length is 196 miles; its greatest breadth, 109 miles.

Coasts. Holland has an extensive and varied line of sea-coast. It is low everywhere, sometimes below the sea-level, and enormous dykes are maintained by the state, which alone prevent the sea from flooding the land. The principal inlet is the Zuider Zee, which was formed by an irruption of the sea in 1282. Before that the center of its bed was occupied by a small lake. Among later irruptions, 40 villages, with their inhabitants, were destroyed, in 1825, in Waterland.



Church of Moses and Aaron, Amsterdam.

Surface. Holland is a flat country, and large parts of it are naturally marshy. The expense of constructing and maintaining the dykes is enormous. These dykes are vast embankments of earth, 30 feet high, and from 70 to 300 feet broad, strengthened by massive timber-work and masonry, and the piles are often protected by iron plates.

Rivers. The Rhine, the Maas, and the Scheldt are the principal rivers.

Climate. Holland is rather colder than England, and the winters are much more severe. The Zuider Zee is occasionally, and the canals are always, frozen over in winter.

¹ Holland, *ollant*, "marshy ground."



The Hague.

Productions. There are no metals, and but few minerals. Both building-stone and timber are scarce. Water-fowl, swans, and storks are very numerous.

Inhabitants. There are about five million inhabitants in Holland. The common language is the Dutch. The Dutch, as the people of Holland are called, are noted for their industry, frugality, and cleanliness. They are among the best farmers and the most successful traders in the world.

Industries. Vast numbers of cattle are reared, and cheese, butter, etc., are produced. Ship-building, sugar-refining, and gin-distilling are carried on extensively.

Government. The government is a hereditary monarchy, under constitutional forms.

Education. Education is in an advanced condition. Elementary schools, and also the schools for higher education, are among the best in Europe.

Cities. Amsterdam is the largest city of the Nether-



Rotterdam.

lands, and is a great center for foreign trade. Leyden has a university of great repute. Rotterdam and Utrecht are other noted cities. The Hague is a large and well-built city, the seat of government, and the capital of the kingdom.

Colonies. Holland has extensive colonies in the Dutch East and West Indies, and in South America.

QUESTIONS ON HOLLAND.

Locate Holland. Describe its natural features. What are its principal rivers? What are the occupations of the people? How are they governed? What is said of the education of the people? Name several of its important cities?

BELGIUM.



BELGIUM¹ is a small country in the west of Europe. It has an area of 11,373 square miles. Its greatest extent from east to west is about 160 miles, and from north to south, about 115 miles. It is a level country.

Rivers. The Mense and the Scheldt are the two chief rivers of Belgium.

Climate. The climate is moist in the western and dry in the eastern provinces.

Productions. Belgium is rich in minerals, and possesses extensive coal-fields and deposits of iron ore.

Inhabitants. Belgium has more people to the square mile than any other country in Europe. It is probably the most populous in the world. There are 6,300,000 inhabitants,—an average of 550 to the square mile. The people are noted for their industry.

Industries. Corn, flax, hemp, tobacco, beets, and clover are grown; and woolen, linen, lace, cotton, and silk goods are manufactured. The people have also a large income from the rearing and exportation of Belgian hares. The fine laces and carpets of Brussels and Antwerp are unrivaled in quality.

Government. Belgium is a liberal constitutional monarchy, under a king.

Education. The public schools are supported partly by the state, and partly by the provinces and communes. There are four universities: Brussels, Ghent, Liege, and Louvain.

Cities. Brussels is the capital of Belgium. It stands on the river Senne, in the center of the kingdom, and is a well-built and attractive city. Among the interesting places in its neighborhood is the battle-field of Waterloo, 10 miles to the southward. Antwerp is the principal port of Belgium, and the chief center of its foreign trade.

QUESTIONS ON BELGIUM.

Locate Belgium. Describe its climate. What is said about the number of inhabitants, and the average population per square mile? For what are the people noted? From what places do we get fine laces

¹ Belgium, the country of the Belgæ, the ancient inhabitants of the country.

and carpets? How is Belgium governed? What is said of the public schools of Belgium? What is the capital of Belgium? What interesting historical battle-field is near Brussels? What is the principal port of Belgium?

DENMARK.



DENMARK¹ is a small country in the northwest of Europe. It contains nearly 14,800 square miles. It has a coast line 4,000 miles in length, and has a good position for the commerce of the seas. It is a flat country, often marshy toward the coast, and in some places is protected by dykes. It has no rivers of any size, though small streams are numerous.

Climate. The climate of Denmark is temperate and healthy. The winters are severe, the channels being occasionally frozen.

Productions. The chief sources of national wealth are



Thorwaldsen Museum, Copenhagen.

found in the rich pastures and in the fisheries. Turf is used for fuel.

Inhabitants. The people belong to the Scandinavian family of nations, and number considerably over two millions.

Education. Education is general, and there are public, primary, and elementary schools.

Industries. The occupations of the people are chiefly incident to the soil, the herding of cattle, and the making

¹ Denmark, *Dane-March*, the march or frontier of the Danes.

of butter and cheese. The Danes are also good sailors, and have always been noted for their love of the sea.

Government. The government is a constitutional monarchy.

Towns. Copenhagen¹ is the capital. It has extensive docks and great trade. It is strongly fortified. One third of the people live in towns.

Foreign Possessions. Denmark, besides Iceland and the Faroe Islands, has some settlements on the west coast of Greenland; and the islands of Santa Cruz, St. Thomas, and St. John, in the West Indies.

QUESTIONS ON DENMARK.

Locate Denmark. From what is the name derived? Describe the climate. What is the chief source of the wealth of the people? What is said of the public school system? What is the capital?

ICELAND.

ICELAND is the second largest island in Europe, and has an area of about 40,000 square miles. Its northern coast just touches the borders of the frigid zone. The climate is cold and the surface barren, and there are a number of volcanoes.

Natural Features. Its greatest natural feature, however, is its boiling springs. The largest of them, called the Great Geyser, throws up a column of water to the height of from 50 to 150 feet.

Iceland has about 72,000 inhabitants.

QUESTIONS ON ICELAND.

Locate Iceland. Describe its climate. What is said of its natural features? How many inhabitants has Iceland?

THE BALKAN STATES.

These minor states include Bulgaria, Eastern Roumelia, Bosnia and Herzegovina, Montenegro, Servia, and Roumania. The Balkan peninsula extends from the Adriatic to the Black Sea, and has for several centuries been subject to the Turks, who are gradually losing their power.

BULGARIA.

BULGARIA, a principality of southeastern Europe, incorporated with which is Eastern Roumelia, is nominally a part of European Turkey. It is bordered on the east by the Black Sea, and on the north by the Danube. Servia lies to the east, and the Turkish province of Adrianople to the south.

Bulgaria has an area of 24,000 square miles, and a population of three and one half millions.

The Bulgarian people are of Finnish origin, but are now largely blended with the Slavs, and speak the Servian language. Nearly all are members of the Greek church.

The chief towns are Sofia, the capital, on the northern slopes of the Balkans, and Varna, a fortified port on the Black Sea.

Much grain is exported. Cattle and sheep are extensively reared.

¹ Copenhagen, "merchants' haven." The harbor is formed by the channel between Copenhagen proper and Christianshavn.

EASTERN ROUMELIA.

EASTERN ROUMELIA has an area of 13,500 square miles, and a population of about one million.

The soil is, in parts, extremely fertile.

QUESTIONS ON BULGARIA AND EASTERN ROUMELIA.

Locate Bulgaria. Tell what you can about the Bulgarian people. What are the chief towns? Locate Eastern Roumelia.

BOSNIA AND HERZEGOVINA.

Before the Russo-Turkish war of 1878, Bosnia and Herzegovina, in the northwest of the Balkan peninsula, formed part of the Turkish dominions, but they are now integral parts of the Austro-Hungarian Empire.

MONTENEGRO.

MONTENEGRO, a small, independent principality in the northwest of Turkey Proper, has been independent since the seventeenth century. It is noted for the great fearlessness and energy of its inhabitants. It has an area of 3,630 square miles, and a mixed population of about 220,000. The capital is Cetinje.

SERVIA.

SERVIA is an independent kingdom lying to the south of Hungary. It has an area of 18,800 square miles, and a population of about two and a quarter millions, principally Slavs. The country is well watered by numerous tributaries of the Danube, and the soil is fertile. Wheat, tobacco, silk, wine, and timber are exported, and its mineral products are numerous. The climate is extremely variable.

The executive power is vested in the king.

Belgrade, the capital, is a strong fortified town, at the junction of the Save and the Danube.

QUESTIONS ON SERVIA.

Locate Servia. What is its capital? What are the products of Servia?

ROUMANIA.

ROUMANIA was proclaimed a kingdom in 1881. It was formed in 1861 by the union of Moldavia and Wallachia, two provinces lying between the Carpathians and the Danube. It has an area of 48,000 square miles. The population is estimated at 5,800,000. Roumania received its name from the fact that it was peopled by the descendants of the old Roman colonists and the native Dacians. The climate is subject to extremes of heat and cold. The mountainous western part is well wooded, and the extensive plains are well suited to pasturage and agriculture, which engage the people. Minerals are abundant, but are not worked.

Education is by law free and compulsory, but only three per cent of the population attend school. The people belong principally to the Greek Church.

The government is a limited monarchy.

The chief towns are Bucharest, the capital, and seat of government, with some important manufactures; Jassy, and Galatz.

QUESTIONS ON ROUMANIA.

Locate Roumania? What is said of the government? When did it become a kingdom? What are its chief towns?

ITALY.



ITALY¹ is a large country of southern Europe. The greater portion of it forms a peninsula which advances far into the Mediterranean.

Boundaries. Italy is bounded on the north by Austria and Switzerland; on the northwest by France; on the southwest and south by the Mediterranean Sea; and on the east by the Adriatic Sea. In shape, Italy is likened to a boot, the two smaller peninsulas into which it divides in the south forming respectively the toe and the heel.

Extent. Italy has an area of 114,000 square miles. The greatest length, from northwest to southeast, is about 700 miles; and the greatest breadth, 350 miles.

Coasts. The coast line of Italy is very extensive, and includes a great number of good harbors. The total length of coast line is about 4,000 miles. Several parts of the coast, such as the Bay of Naples and the Gulf of Genoa, are famous for their scenery.



Rome.

the sea. The climate is warm and delightful. Sicily has a population of about three and one half millions.

Sardinia is the second largest island in the Mediterranean Sea. It is extremely fertile, and its valleys are well watered by numerous streams. The population is about 750,000.

Malta has a population of about 168,000, and belongs to England.

The island of Capri is famous as being the place where the Roman emperor Tiberius passed the last ten years of his life, and also as being the favorite retreat of Augustus; Elba, as the place of Napoleon's exile; and Capriera, as the home of Garibaldi, the liberator of Italy.

Mountains. A large portion of Italy is mountainous. The principal mountains are the Alps and the Apennines.

Volcanos. Mount Vesuvius, 3,932 feet high, is the only active volcano on the mainland of Europe, and is on the west side of Italy, near the shores of the Bay of Naples.

In the first known eruption of Vesuvius (A. D. 69), the cities of Herculaneum and Pompeii were so completely covered by lava and ashes, that their very sites long remained unknown.

¹ Italy, the country of the Itali, an ancient tribe who occupied the southern parts of the peninsula.

Islands. The three largest islands are Sicily, Sardinia, and Corsica, the last of which belongs, politically, to France.

Sicily, the largest island in the Mediterranean, is about 180 miles long and 120 miles broad. Its surface is uneven. The principal mountain range runs across the northern part of the island. The famous volcano, Mount Etna, rises to a height of 10,874 feet above

Mount Etna is the largest and loftiest volcano in Europe, and, since the year 476, it has been in eruption about sixty times. In the earthquake of 1783, over 300 towns and villages were destroyed, and in 1857 over 10,000 persons perished.

Plains. The largest plain in Italy is the Plain of Lombardy, one of the most fertile regions of Europe.

Rivers. With a few exceptions, the rivers of Italy are of but little importance, though of great historical fame. In Italy, as in Greece and other lands, many localities, which, in themselves, claim little regard, command interest from their associations. The Po and the Tiber are known in song, story, and history.

Lakes. Italy has a number of large and beautiful lakes. Lake Maggiore and Lake Como are two of the most picturesque and beautiful lakes in the world.

Climate. The climate of Italy is very warm, as is the case with all the countries that border upon the Mediterranean Sea. It is also, for the most part, dry and healthy. In some parts, however, the air is very unhealthy, especially at some seasons of the year. The malaria from the marshes, and the sirocco, a hot, stifling wind from Africa, are the great drawbacks to the climate of Italy.

The western coast of America has sometimes been called the "Italy of America," but its climate, in many respects, is even superior to that of Italy.

Productions. The vegetation of Italy is rich and luxuriant. The mineral produce is considerable. The finest marble in the world is found near Carrara, in the Apennines. The fisheries around the coast are valuable.

Inhabitants. Italy contains upwards of thirty million people. Although the inhabitants are a distinct race, yet they are descended from widely different races. The Italian language is derived from the Latin. Of the various dialects, the Tuscan only is pure.

Industries. Wheat, maize, olive oil, silks, and wines are among the productions of Italian industry. The silks and velvets of Turin and Genoa rival those of France.

Seaports. The six great ports of Italy are Genoa, Leghorn, Naples, Messina, Palermo, and Venice.

Internal Communication. There are good roads in Lombardy and Sardinia, but in other parts they are defective. There are about 8,000 miles of railway open for traffic in the kingdom. The completion of the great Alpine tunnels has facilitated outside communication.



Genoa.



Naples. Mount Vesuvius in the distance.

Government. The kingdom of Italy is a constitutional monarchy, the legislative power resting in the king and a Parliament of two Chambers.

Education. Until recent years the lower classes of Italy were totally illiterate, and even now the great majority are unable to read and write. Elementary education, however, is being extended, and public schools are now found in all parts of the kingdom. Higher education is well provided for, there being, up to 1893, when 13 of them were suppressed, no less than 21 universities.

Divisions. The kingdom of Italy is divided into sixty-nine provinces, which are named after the chief town in each.

Cities. Milan, in the center of the Lombard plain, and the former capital of Austrian Italy, is noted for its magnificent cathedral and its marble palaces.

Genoa, the chief commercial city of Italy, and in former times the rival of Venice in commerce and dominion, lies on the Mediterranean coast, at the foot of the Apennines, at the head of the gulf called by its name.

Venice stands on the shores of the Adriatic, in the midst of lagoons. It formerly commanded the commerce of the neighboring waters. Canals divide its different quarters, but the city itself is accessible by the railway, which, crossing the lagoons, connects it with Milan and other places in northern Italy, and with Florence and Rome to the south. Venice is one of the most picturesque cities in the world. It was formerly called the "Queen of the Adriatic."

Rome, the "Eternal City," the ancient "mistress of the world," and, since 1870, the capital of the kingdom of Italy, stands on the banks of the Tiber, 18 miles above its entrance into the Mediterranean Sea. The larger portion of the city is on the left bank of the river. The Cathedral of St. Peter and the Vatican Palace are on the right bank.

Florence, the capital of Tuscany, is the intellectual capital of Italy. Florence, "The Beautiful," perhaps the most enchanting of Italian cities, is situated amidst most charming scenery on the banks of the river Arno, and is famous for its collection of works of art, and as the birthplace and residence of many great men, among them Dante, Michael Angelo, Amerigo Vespucci, Galileo, and Savonarola.

Foreign Possessions. Italy has some colonies and dependencies on the eastern side of Africa. Abyssinia and Shoa are virtually Italian protectorates.

HISTORICAL NOTE.

The history of Italy was soon absorbed into that of Rome, founded 753 B. C. In the Middle Ages it was desolated by intestine wars and the interference of the German emperors. The country has been divided among Spain, France, and Germany several times. Spain predominated in the sixteenth and seventeenth centuries, but gave way to Austria in the eighteenth. Napoleon changed the government, but Austrian rule was re-established in 1814. Revolts followed, and the present kingdom was established in 1870.

QUESTIONS ON ITALY.

Locate Italy. Why is Italy likened to a boot? What is said of the islands near Italy? Tell what you can about Sicily. For what is

the island of Capri noted? For what is the island of Elba noted? For what is Mount Etna noted? Name several of the principal rivers of Italy. Describe the climate. Why has the western coast of America been called the "Italy of America"? From whence do we get the finest marble? What are the industries of the people? What can you tell about the government and the education of the people? Give some of the important facts about the leading cities. Tell what you can about Rome. For what is Florence noted? Have you read about the great artists and the men mentioned in the account of Florence?

GREECE.



GREECE¹ is a small country in the south of Europe, and consists of three well-marked divisions, Northern Greece, Southern Greece or the Morea, and the adjacent islands, or Insular Greece.

Boundaries. Greece is bounded on the north by Turkey, on the west and south by the Mediterranean Sea, and on the east by the Ægean Sea.

Extent. The total area of the kingdom is nearly 25,000 square miles. The greatest length, from north to south, is 205 miles; the greatest breadth, from east to west, is 160 miles.

Coasts. The mainland of Greece has the sea on three sides, and its coasts are indented by a vast number of inlets. It has been remarked that Greece is distinguished among other countries by the same character that distinguishes Europe itself from the other continents,—that is, the great range of coast compared with the extent of surface.

Islands. A large portion of Greece consists of islands. The Ionian Islands are situated to the west and south of Greece. They enjoy a delightful climate, and have a soil that is fertile and productive.

Mountains. Every part of Greece is mountainous. The highest elevations reach upwards of 8,000 feet above the sea-level. Mount St. Elias, in the south of the Morea, is one of the most celebrated. The mountains known to the ancients by the names of Cæta, Parnassus, Helicon, and Cithæron, with others that are famous in classic history, are within the limits of Northern Greece. In Thessaly, are Mount Ossa, 6,400 feet, and Mount Pelion, 5,300 feet high. Between Mount Etna and the sea lies the famous Pass of Thermopylæ.

Rivers and Lakes. Greece has no rivers of any magnitude. The largest in Northern Greece is the Salembria, in Thessaly. There are numerous lakes, but none of any considerable size or importance.

Climate. Greece has a warm and delightful climate, snow seldom lying on the lowlands. The mean annual temperature at Athens is about 60 degrees, but the summers are extremely hot.

Productions. The vine, olive, orange, lemon, citron, fig, and mulberry are among the fruits. The cotton plant grows wild. The honey of Attica still preserves its ancient fame.



Modern Athens.

¹ Greece, or Græcia, so called by the Romans. The old Greek name, "Hellas," was not exclusively applied to Greece proper, but was also applied to other countries inhabited by the Greeks, or Hellenes.



Salamis.

Inhabitants. Greece has a population of about two and one quarter millions. The Greeks are a quick, intelligent, and enterprising people. Three quarters of them are probably descended from the old Greeks, and their language closely resembles the ancient Greek tongue.

Education and Religion. Education is compulsory, but the law is very rarely enforced in country districts. About one half of the men and three quarters of the women can neither read nor write. The Greek Church represents the established form of religion.

Industries. The industries are chiefly pastoral, but there is considerable trade. Currants and other fruits, olive oil, honey, tobacco, and cotton are the principal products of the country. Only one sixth of the land is under cultivation.

Internal Communication. There are about 600 miles of railway in Greece, but most of the trade is carried on by sea. A ship-canal across the isthmus of Corinth was opened in August, 1893.

Government. The kingdom of Greece is a limited and hereditary monarchy.

Cities. Athens is the capital of modern Greece. It is on the western side of the peninsula of Attica, and about five miles distant from the harbor of the Piræus, which is its port. It is a city of moderate size, but greatly surpasses, in this respect, any other place in Greece. The sites of Marathon and Salamis are not far distant from the capital.

HISTORICAL NOTE.

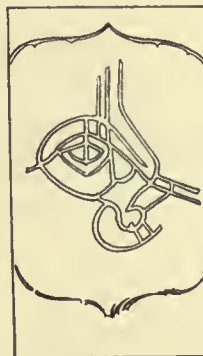
The ancient Greeks, or Hellenes, occupying the many peninsulas and islands of their coasts, were naturally led to seek the neighboring coasts of Phœnicia and Egypt. Contact with these ancient civilizations made the Greeks the earliest civilized people in Europe. The Persians several times waged war against Greece. Alexander the Great, in the third century

B. C., conquered Persia and Egypt, and gained control of all western Asia. After Alexander's death this great empire fell to pieces, and Greece, conquered by Rome, became a Roman province in the second century B. C. It continued under the rule of the Byzantine Empire until the overthrow of Constantinople, when it passed under the Moslem yoke. The Venetians took possession of Athens in 1684, but were forced to withdraw in 1718. In 1821 the Greeks rebelled, and gained their independence, aided by England, France, and Russia.

QUESTIONS ON GREECE.

Locate Greece. What are its natural features? Tell what you can about the Pass of Thermopylæ. Describe the climate of Greece. Name some of the productions of Greece. What is said about its honey? What about its railroads? What is the government? Give some facts about Athens. How did the Greeks first attain civilization? How were they brought in contact with ancient civilizations? What great soldier brought Egypt and Persia under the control of Greece? What other powers subsequently ruled Greece?

TURKEY IN EUROPE.



TURKEY is a large country in south-eastern Europe, and was formerly much more extensive than at present. Before 1878 it included Roumania to the north, and Servia to the south, of the Danube. The present kingdom of Greece was a province of the Turkish Empire from the beginning of the sixteenth century until 1830.

Extent. The area of European Turkey is estimated at over 125,000 square miles, but only half of this area is directly under Turkish rule.

Coasts. The total length of the coast line is about 1,500 miles. The Strait of Constantinople, leading from the Sea of Marmora to the Black Sea; the Dardanelles, connecting the Ægean Sea with the Sea of Marmora; and the Strait of Otranto, joining the Ionian and the Adriatic seas,—are special features.

Islands. The island of Crete, or Candia, has upwards of 200,000 inhabitants, nearly all Greeks. It has an area of about 3,000 square miles, and has a fertile soil, producing olive oil, wine, oranges, etc.

Mountains. The country, in general, is mountainous, though there are some level districts. The chief mountains are the Balkans,



Constantinople.

the Dinaric Alps, and the Pindus Range. The highest point is in the Balkans, and is upwards of 10,000 feet above the sea.

Rivers. The principal river is the Danube, flowing into the Black Sea; and the Maritza, a navigable stream.

Climate. Most parts of Turkey have a warm and delightful climate. To the north of the Balkans, the winters, however, are severe.

Productions. The fig, olive, and mulberry are abundant, as well as the orange. Corn is grown abundantly in the Danubian provinces. Iron and other minerals abound in the rich tracts adjoining the Balkan Mountains.

Divisions. By the Treaty of Berlin (1878), Bulgaria and Eastern Roumelia were formed into self-governing tributary principalities, and Bosnia and Herzegovina were handed over to Austria for an indefinite period. Servia and Montenegro were acknowledged as independent states.

European Turkey thus includes Turkey Proper, comprising the provinces still under the direction of the Porte; the self-governing principality of Bulgaria; and Bosnia and Herzegovina, occupied and administered by Austria as a portion of the empire.

TURKEY PROPER.

TURKEY PROPER has an area of 66,500 square miles, and a population of about 5,000,000, 700,000 of whom are Turks.

Industries. Turkey is a badly governed country, and the pursuits of industry are at a low ebb. Its great natural resources in soil, climate, and vegetation are neglected. In the northern districts large numbers of oxen and sheep are reared. In the towns, morocco leather is prepared. In the mountain districts the people are chiefly shepherds.

Commerce. The amount of foreign trade is considerable. The chief ports are Constantinople, Salonica, Enos, and Gallipoli.

Government. The government of Turkey is a despotic monarchy, in which the Sultan exercises an authority that is practically absolute.

Education and Religion. Public education has not made much progress, and the limited instruction given in the public schools and colleges is based on the Koran. The

Turks themselves are Mohammedans, but the rest of the population belong principally to the Greek Church.

Cities. Constantinople is the capital of the Turkish Empire. It stands at the southern entrance of the Strait of Constantinople. Adrianople, the second city of Turkey, is on the banks of the river Maritza, to the northwest of the capital. Salonica is at the head of a gulf of the same name, in the northwestern corner of the Archipelago.

HISTORICAL NOTE.

A small tribe when they entered Europe, the Turks gradually grew in numbers and extended their dominions, until they put an end to the Eastern Roman Empire. Their failure to capture Vienna was a decided check to their progress in Europe; and since their first clash with the Russians in 1570, they have been gradually losing power and territory.

QUESTIONS ON TURKEY IN EUROPE.

Tell what you can about Turkey in Europe. Name its principal natural features. What notable island is in Turkey in Europe? What are the principal mountains? What is the principal river? Tell what you can about the productions. What are the products of Turkey Proper? What are the chief ports of Turkey? What is the government of Turkey? What is said about public education? What is the capital of the Turkish Empire?

AUSTRIA-HUNGARY.



AUSTRIA-HUNGARY is the great dual empire of central Europe, and is, next to Russia, the largest state in Europe.

Boundaries. Austria-Hungary is bounded on the north by Germany; on the east by Russia and Roumania; on the south by Roumania, Servia, the Adriatic Sea, and Italy; on the west by Switzerland and Bavaria.

Extent. The area of Austria¹ is 116,000 square miles, and that of Hungary, 125,000 square miles. The greatest length, from east to west, is about 800 miles, and the greatest breadth, from north to south, is nearly 500 miles.

Coasts. The only sea-coast which belongs to Austria is at the head and on the eastern side of the Adriatic.

Mountains. The mountains include the Bohemian Mountains, the Austrian Alps, and the Carpathians.

Rivers. The principal rivers are the Danube and the Dniester, flowing into the Black Sea; the Etsch and Sdokka, flowing into the Adriatic; the Oder and the Vistula, flowing into the Baltic Sea; and the Elbe, flowing into the North Sea. The Danube is the great river of Austria. It flows through the heart of the empire, from west to east.

Climate. The climate, on the whole, is dry, healthy, and temperate.

Productions. The productions are varied. Almost every plant indigenous to Europe is found in Hun-

¹ Austria, German, *Oesterreich*, eastern kingdom. So called because it formed the eastern portion of the dominions of Charlemagne.



Budapest.



Vienna.

gary alone, and the mineral wealth of the two countries is very great. The country yields annually about 500,000,000 gallons of wine. The Adriatic fig grows on the shores of the Adriatic; the olive and the mulberry are also found there.

Inhabitants. The empire has nearly forty-two million inhabitants. About twenty-four millions inhabit the Austrian division of the empire, but less than ten millions of them are Germans. Five and one half million Austrian subjects are Poles. The Slavs, Roumanians, Magyars, and others represent other subjects of the empire. Jews are scattered throughout the empire.

Industries. There are considerable manufactures, but farming is followed by a large number of the people. Rye is the staple crop; corn, barley, and oats are also grown. Much wine is produced. Vast numbers of cattle and sheep are reared. Bohemia is celebrated for its glass-works and a number of other important manufactures.

Commerce. The foreign commerce is limited, on account of the small sea-coast. The ports of Trieste and Fiume are the chief seats of the foreign trade of the empire.

Internal Communication. The highways are excellent, and there are 18,000 miles of railroads, as well as a well-developed telegraphic and postal service.

Government. The government is a hereditary dual monarchy, the emperor of Austria being also king of Hungary. The empire, as a whole, has no nationality. The ruling power is German in the western provinces, and Hungarian in the eastern division, but the majority of the people differ in race, language, habits, and ideas from the dominant people in

both divisions of the country. For this reason the government maintains a powerful army. Military service is compulsory.

Education. Public education was rather neglected until recently. The Slavonic provinces are particularly ignorant. In the Germanic portions of the empire, every child between the ages of six and twelve is compelled to attend school. There are eleven universities. The one at Vienna has over 5,000 students, and the one at Budapest has 3,600 students.

Cities. Vienna is the capital of the empire, and stands on the south bank of the Danube. It is a great center of trade.

Prague, the capital of Bohemia, is next in size to Vienna, and is a place of much note in history.

Trieste, situated at the head of the Adriatic, is the principal sea-port of Austria.

Budapest, the chief city of Hungary, stands on opposite banks of the Danube.

HISTORICAL NOTE.

Austria formed a part of the Roman Empire. It was overrun by the Huns and other barbarians, who were driven out by Charlemagne. The greatness of Austria dates from the beginning of the Hapsburg dynasty, which continues to this day. Hungary was also subject to the Roman yoke, and was retained by them till the third century, when it was seized by the Goths. The Goths were expelled by the Huns, who overran the country. The Avars held the country until their destruction by Charlemagne. Later, Scythians and Magyars settled in the country.

QUESTIONS ON AUSTRIA-HUNGARY.

State several important facts about the size and countries of Austria-Hungary. Why is it called the Eastern Kingdom? Name the principal rivers. What are the principal productions? Tell what you can about the Adriatic fig. What are the industries of the people? For what is Bohemia noted? What is said about the railroads and telegraph service? Tell what you can about the education of the people. What is there peculiar about Budapest? What is the capital of Bohemia?



Prague.

RUSSIA.



RUSSIA is a country of eastern Europe. It is of vast extent, embracing more than half of the continent.

Boundaries. Russia is bounded on the north by the Arctic Ocean; on the west by the Baltic Sea, Prussia, and Austria; on the south by Roumania, the Black and Caspian seas, and Caucasia; on the east by Siberia and Russian Central Asia.

Extent. The Russian Empire has never been actually surveyed, but its area is officially estimated at 8,644,100 square miles, of which about a quarter is in Europe.

Coasts. Russia possesses a coast line upon four inland seas, the Baltic, the Black, the Caspian, and the White seas.

Islands. Of the islands, Spitzbergen ("peaked mountain") and Nova Zembla ("new land") are of interest on account of being connected with expeditions to the North Pole. None of the islands in the Arctic Ocean are permanently inhabited, but are valuable as hunting and fishing stations.

Surface. Russia has a number of immense and nearly level plains, which slope toward the Baltic, Black, Caspian, and White seas. The most perfectly level of these plains are in the southeast, and are called steppes. The steppe is an open plain, without trees. On them the inhabitants pasture immense herds of horses and cattle. Salt-water lakes are frequently found in the lower steppe-land.

Mountains. The only mountains belonging to European Russia are the Urals, on the east; the Caucasus, on the southern border line; and the Valdai Hills, in the center. The Urals extend for 1,200 miles. The chain of the Caucasus is 700 miles long, and have an average elevation of from eight thousand to nine thousand feet, culminating in Mount Elbruz, 18,571 feet high. The highest of the Valdai Hills does not exceed 1,000 feet.

Rivers. The following are the principal rivers:—

Flowing into the Baltic Sea: The Neva, Southern Dwina, Niemen, and Vistula.

Flowing into the Black Sea: The Dniester, Dnieper, and Kuban.

Flowing into the Sea of Azof: The Don.

Flowing into the Caspian Sea: The Volga and the Ural.

Flowing into the White Sea: The Northern Dwina and the Onega.

Flowing into the Arctic Ocean: The Petchora.

The Neva, 40 miles long, has St. Petersburg, the capital of the Russian Empire, at its mouth, and is the outlet for the great lakes.

It is connected by canals with the Volga, and is frozen over five months of the year.

The Southern Dwina and the Niemen have each a navigable course of about 500 miles.

The Dniester (700 miles) and the Dnieper (1,200 miles) are navigable throughout the greater part of their courses.

The Don (1,100 miles long) is navigable during only a part of the year.

The Volga (2,200 miles long) is the longest river in Europe. It rises in the Valdai Hills, and enters the Caspian by numerous mouths, draining, with its tributaries (the Oka, Kama, Moskva, etc.), nearly a seventh of Europe. During the winter it is frozen over, but in summer it is extensively navigated. The Volga is connected by canals with the Dwina, Neva, etc.

The Ural, which forms one of the natural boundaries between Europe and Asia, has a course of 1,150 miles, and is navigable for small vessels.

The Petchora (900 miles), which rises in the Ural Mountains, is the only large European river that falls directly into the Arctic Ocean.

The Northern Dwina has a navigable course of upwards of 700 miles, and is connected by canals with the Neva and Volga.

Lakes. Most of the lakes are situated near the Black Sea. Ladoga and Onega are the two largest. Lake Ladoga, 6,330 square miles, is the largest lake in Europe.

Climate. Russia has a great variety of climate, owing to its extensive range of latitude. Its northern part is cold, and toward the south it becomes warmer. The Russian winters are very long and severe, while the summers are intensely hot.

The severity of the Russian winters may be inferred from the fact that most of the rivers are for several months covered with ice of great thickness. The White Sea in the north is always, and the Sea of Azof in the south occasionally, frozen over in winter.

Productions. The forests still cover more than one third of Russia. Timber, tar, pitch, turpentine, and potash are some of its valuable productions. Its mines of iron and platinum are valuable, while copper, salt, marble, coal, petroleum, and gold are also found. The reindeer and polar bear are found in the north, and the common bear and wolf in the forests. The beaver, sable, fox, and ermine are also caught, and seals are obtained from the Arctic Ocean and the Caspian Sea. The sturgeon is found in all the larger rivers, and caviare is an important source of revenue.

Inhabitants. Russia is very sparsely peopled, considering its vast size, although the total population is large. Including Finland and Poland, Russia contains about ninety-six millions of people,—an average of only 48 to the square mile. Five sixths of the entire population belong to the Slavonic race. There are three millions of Finns, Lapps, and Samoyedes in the north, and in the southeast about the same number of Tartars. Jews are numerous, but harsh measures have driven vast numbers of them out of the country. The majority of the people speak the Russian language, of which there are three principal dialects, the pure Russian being spoken only in the central provinces. The Polish, Lettish, and the Finno-Tartar languages are also spoken.



A Russian Town near the Siberian Frontier, on the Trans-Siberian Railway.



Winter Palace, St. Petersburg.

Industries. Russia is a great corn-growing country. Its great plains are also covered with crops of the finest wheat. Rye and other grains are grown, and vast numbers of cattle are reared on the steppes. Russia is not a manufacturing country, although considerable skill has been displayed in metal-working.

Commerce. Russia has a great deal of foreign commerce, exporting corn, hemp, tallow, hides, and bristles; timber, potash, and other products of its vast forests. It has also a large number of imports. Much of the inland trade is carried on at fairs. At the annual fair at Nizhni Novgorod, goods to the value of over forty million dollars are sold.

Ports. The chief ports are St. Petersburg, Riga, and Revel, on the Baltic; Archangel, on the White Sea; Astrakhan, on the Volga; and Odessa, on the Black Sea.

Internal Communication. There are excellent high-roads, and inland water-communication by means of navigable rivers and canals. There are over 19,000 miles of railway.

Government. Russia is an absolute monarchy, the ruler bearing the title of czar, or emperor. Military service is compulsory, and an immense standing army is maintained.

Previous to the year 1861 the great mass of the people were serfs, in a social condition, but little superior to absolute slavery, and rated as the property of their owners, like so many head of cattle. Serfdom, however, was abolished by the Emperor Alexander II. (who was assassinated in St. Petersburg on March 13, 1881), and great improvement in the general condition of the Russian peasantry has ensued.

Education. Education is very backward, except in Finland, where it is almost universal. In Russia proper, only twenty per cent of the recruits for the army can read and write.

Religion. In religion, the majority of the people of Russia belong to the Greek Church. There are eight million Roman Catholics, three million Protestants, three million Jews, and two and a half million Mohammedans.

Cities. St. Petersburg is the capital of the Russian Empire, and stands beside the mouth of the river Neva, at

the head of the Gulf of Finland. It has 900,000 inhabitants in summer and over one million in winter. It is a splendid city, of modern origin, having been founded by Peter the Great in 1702.

The ancient city of Moscow, in the heart of Russia, was long the capital of the empire. Moscow stands on the river Moskva.

Among other prominent cities are Warsaw, Odessa, and Sebastopol.

HISTORICAL NOTE.

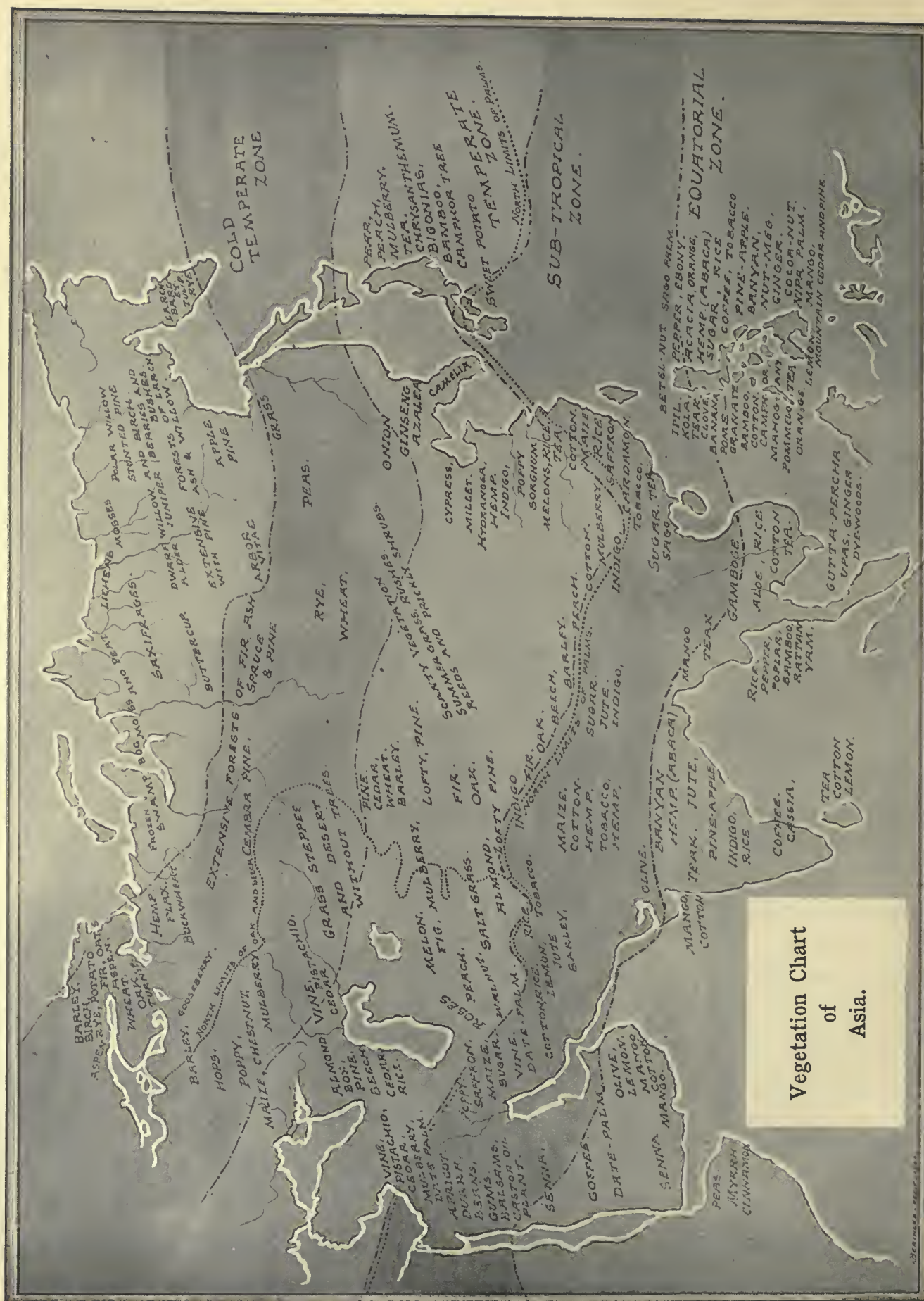
The first regular government in Russia was established in 802. The ruler of Russia assumed the title of Czar about the time that Columbus discovered America. Peter the Great, anxious to make Russia a naval power, and having no seaport, conquered the eastern shores of the Baltic from Sweden, and established St. Petersburg. The north shores of the Black Sea he conquered from Turkey. In the year 1812, Napoleon invaded Russia, and, defeating the Russians, he purposed making his winter quarters in Moscow, but the Russians burned the city. Napoleon had thus no shelter for his troops in the midst of the terrible Russian winter, his troops perishing miserably in their disastrous retreat. Finland was formerly a part of the Swedish monarchy, and only became attached to Russia in 1809. Russia, in spite of the protests of the Finns, is substituting the Russian language for that of the people. The territory now bearing the name of Poland has been since 1831 a Russian province, but embraces only a small part of the country formerly known by that name, the other portions having been annexed by Prussia and Austria. Poland was long a distinct and powerful monarchy.

QUESTIONS ON RUSSIA.

What is said about the extent of Russia? Describe its islands. What is said about the serfs of Russia? What is the meaning of the word "steppes"? Describe the mountains of Russia. Describe the seas. Tell what you can about the climate. Give an account of its productions. Name some of the animals of that country. Tell what you can about the people. Describe the roads, the canals, and tell what you can about the railways. What is the government of Russia? What is the capital of Russia? Tell what you can about Moscow. About what time was the title of czar assumed by the ruler of Russia? What Russian emperor founded St. Petersburg? What was the object of the Russians in burning Moscow? What territory formerly belonging to Sweden now forms a part of the Russian Empire? What is the name of a once powerful monarchy, part of which now belongs to the Russian Empire?



Moscow.



ASIA.

ASIA¹ is the farthest east of the three continents that form the Old World. It is the largest of all the great divisions of the globe.



Outline Map of Asia.

Boundaries. Asia is bounded on the north by the Arctic Ocean; on the east by the Pacific Ocean; on the south by the Indian Ocean; and on the west by the Red Sea, the Mediterranean Sea, the Caucasus Mountains, the Caspian Sea, the river Ural, and the Ural Mountains. Asia is joined to Africa by the Isthmus of Suez, 73 miles wide, which is between the Mediterranean and the Red seas; and is divided from North America by Bering Strait, 35 miles in width. Asia measures more than 5,000 miles across, in a direct line from east to west.

Extent. The area is 17,500,000 square miles, so that it is nearly five times larger than Europe. Asia embraces a third of all the land, or a twelfth of the entire surface, of the globe.

Coasts. The total coast line of Asia is 35,000 miles. In shape, Asia is less irregular and more solid than Europe. Its vast interior exhibits an immense expanse of land far removed from the ocean. Each of the great oceans which wash the shores of Asia has several inlets. The Arctic Ocean, on the north side of Asia, has two gulfs,—the Gulf of Obi and the Gulf of Yenisei. The Pacific Ocean, which washes the eastern shores of Asia, has the following arms: Bering Sea, the Sea of Okhotsk, the Sea of Japan, the Yellow Sea, and the China Sea. These are, in a great measure, land inclosed, though connected with the ocean by nume-

rous channels. The northern part of the Sea of Japan is called the Gulf of Tartary. The Indian Ocean, on the south of Asia, divides into the Bay of Bengal and the Arabian Sea. The Red Sea¹ and the Persian Gulf, two inland seas, are likewise arms of the Indian Ocean.

Straits. The most important straits of Asia are five in number: The Strait of Babel Mandeb, forming the entrance to the Red Sea; the Strait of Ormuz, forming the entrance to the Persian Gulf; the Strait of Malakka, forming one entrance to the China Sea; the Strait of Sunda, forming another entrance to the China Sea; and Bering Strait, between Asia and North America.

Capes. The principal capes are Northeast Cape, or Cape Chelyuskin, on the north; East Cape and Cape Lopatka, on the east; Cape Romania, Cape Comorin, and Ras al Had, on the south; and Cape Carmel and Cape Baba, on the west.



Tea Plant. Island of Ceylon.

¹ Most probably derived from a Hebrew or Assyrian root meaning the "east" or the "rising sun." It is also held by some that it is derived from the Asæi, one of the old Caucasian tribes mentioned by Ptolemy.

¹ Said to be derived from the coral reefs which abound in it. This is not correct, as the corals are mostly white. But patches of deep-red water are frequently seen within the reefs, whence the name. These patches are due to the presence of large numbers of microscopic animalculæ. (Hughes.)

Peninsulas. The following peninsulas belong to Asia: Kamchatka, Corea, Farther India, India Proper, Arabia, and Asia Minor.

Islands. The islands of Asia are important and numerous, especially on its southern and eastern coasts, and include the New Siberia Islands and the Bear Islands, in the Arctic Ocean; the Aleutian Islands, the Japanese Islands, the Philippine Islands, in the Pacific Ocean; Ceylon, the Andaman and Nicobar Islands, and the Laccadive and Maldivé Islands, in the Indian Ocean; Cyprus and Rhodes, in the Mediterranean Sea.

Mountains. The mountains of Asia run principally from east to west, and generally border the table-lands. A few run from north to south. The principal mountain ranges are the Himalaya Mountains, the Hindu Kush, the Altai Mountains, the Kuenlun and Thian Shan ranges, the Elburz Mountains, the Caucasus, the Karakoram Mountains, the Mountains of Armenia, the Taurus Mountains, the Mountains of Lebanon, and the Ghats.

Rivers. The rivers of Asia are the largest in the Old World. Most of them have their sources in the high table-lands and bordering mountains in the interior of the continent. The principal rivers are the Obi, the Yenisei, and the Lena, the three great rivers of Siberia; the Hoangho and the Yangtze, in China; the Ganges, in India; the Tigris and Euphrates; and the Irawadi, Brahmaputra, and Ganges, in India.

Lakes. The three largest lakes of Asia, excluding the Caspian Sea, are Aral, 26,000 square miles; Baikal, 15,000; Balkash, 9,000.

Inhabitants. The population of Asia comprehends more than half of the human race, and numbers at least eight hundred and fifty millions. They are of various families of mankind. They differ in language, appearance, and color of skin. More than thirty different languages are spoken in India alone, nearly all of them, however, being derived from the Sanscrit. The languages of eastern Asia — China and the Indo-Chinese Peninsula — form a totally different class. The Chinese, Indo-Chinese, and Mongolian tribes are distinguished by striking differences from the other nations of mankind. They have a yellowish-brown (or olive) complexion, a broad flat face, with obliquely set and deeply sunk eyes, the in-

ner corners slanting towards the nose; lank and black hair, with little beard; a broad, square, and thick-set frame, with a stature considerably below that of the European.

Religions. Of the two great forms of religion that originated in the southwest of Asia, Christianity and Mohammedanism, the latter has spread over Arabia, Asiatic Turkey, Persia, and Turkestan, while the former is confined to Armenia, Georgia, and smaller sections of Asiatic Russia and British India. The prevailing religion in India is Brahmanism, with its offshoot, Buddhism. The Lamaism of Tibet is another form of Buddhism. The religion of the upper classes in China and Japan is Confucianism. The nomadic tribes of Siberia and the central parts of the continent are heathens.

Divisions. By far the greater portion of Asia is held by three powers, two of which are European. Russia holds the whole of the northern part of the continent, a large part of central Asia, and the provinces of the Caucasus. India is under the control of the British. The Chinese Empire comprises China Proper and the adjacent regions of Tibet, Eastern Turkestan and Zungaria, Mongolia, Manchuria, and Corea.

Of the minor powers in Asia, the most important are Japan on the east, and Turkey and Persia on the west.

The United States of America maintain authority over the Philippine Islands. France controls the eastern part of

Farther India. Portugal has a few small settlements on the coasts of India and China.

The following is a list of the countries of Asia:—

ASIATIC TURKEY.

ASIATIC RUSSIA.

ARABIA.

PERSIA.

THE CHINESE EMPIRE.

JAPAN.

BALUCHISTAN.

INDIA.

FARTHER INDIA.

EAST INDIAN ARCHIPELAGO.

AFGHANISTAN.

QUESTIONS ON ASIA.

What is the meaning of the word "Asia"? Locate Asia. Name some of the principal seas of Asia. Give the names of some of the peninsulas. What are the principal islands? Name the highest mountains. Describe the personal features of the inhabitants of Asia. What two great forms of religion originated in Asia? What are the principal straits of Asia? Name the capes? Tell what you can about the population of Asia. What important Asiatic islands belong to the United States? Tell what you can of the history of these islands.



Moorish Tower. Cyprus.

ASIATIC TURKEY.

The Sultan's Asiatic empire is much larger than Turkey in Europe. It comprehends three distinct divisions: Asia Minor, Syria, and the countries on the Euphrates and Tigris.

Climate. The climate of Asiatic Turkey is, for the most part, warm, but varied in different regions. The seasons of rain and drought are of regular recurrence.

Productions. The vegetable and mineral productions of Asiatic Turkey are varied and valuable, but undeveloped. Raisins, figs, almonds, oranges, dates, wheat, barley, rice, and maize, with tobacco, hemp, and flax, are grown. Horses, cattle, sheep, and goats are bred in large numbers, but the camel is the ordinary beast of burden.

Inhabitants. The population is estimated to be about 21,000,000. It is composed of various nations, including the Turks, Greeks, Syrians, Jews, Arabs, Armenians, Kurds, and many other tribes of mountaineers. The majority of the people are engaged in different forms of agriculture.

Government. Asiatic Turkey is under the same general government as Turkey in Europe. The Sultan, who resides at Constantinople, delegates authority to the various pashas.

ASIA MINOR.

ASIA MINOR¹ is an extensive peninsula between the Mediterranean and the Black seas.

Islands. There are numerous islands off the coast. The large and important island of Cyprus is found off the south coast, in that part of the Mediterranean known as the Levant. It is 138 miles in length and 60 miles in breadth. It has an area of 3,584 square miles. Cyprus, at an early date in history, became known for its copper. When it was under the control of the Venetians it had a population of 1,000,000, but at present there are only about 210,000, mainly Greeks.

Rhodes, "the Pearl of the Levant," is a rich and fertile island, producing corn, wine, and fruits. The strongly fortified capital, Rhodes, which was held by the Knights of St. John against the Turks for 214 years, was formerly one of the most magnificent cities in the



Rhodes. Street of the Knights Templars.

world. It was here, in ancient times, that the celebrated Colossus of Rhodes stood.

Mountains and Plains. The interior of Asia Minor is a plateau, ranging from 2,000 to 3,000 feet above the level of the sea. Mount



A Modern Type of Woman of Bethlehem.

Olympus, in the northwestern part of the peninsula, reaches 9,000 feet in height, and Mount Argæus is upwards of 13,000 feet.

Rivers. The largest river of Asia Minor is the Kizil Irmak, which flows into the Black Sea.

Cities. Smyrna is the largest city in Asia Minor, and is a chief emporium in the trade of the Levant. It is an ancient city, and was one of the most famous cities of Ionia.

Tarsus (Tarsus) is of importance as being the birthplace of Paul the Apostle, and is in the Cilician plain.

Nearly every part of Asia Minor (as well as Western Asia in general) is of great interest, on account of its historic associations. Its towns, now many of them ruins, its plains and hillsides, its rivers and mountains, are mentioned in ancient history. Troy stood in the northwestern corner of this peninsula. Ephesus and Miletus were on its western shores. Sardis, Philadelphia, Laodicea, and Caesarea were on its interior plains. The armies of the Crusaders marched across it, and the footsteps of Christian apostles have imparted sanctity to its soil.

SYRIA.

SYRIA extends along the coast of the Mediterranean, southward, to the border of Egypt. It is mountainous along the coast, and a desert plain in the interior. The southwestern portion of Syria is Palestine, or the Holy Land.

Mountains. The mountains of Syria consist of two chains, and run north and south, parallel to a large portion of the coast. The most noted of these is Mount Lebanon, mentioned in the Bible. The highest summits of Lebanon are between 9,000 and 10,000 feet. Mount

¹ That is, the *Lesser Asia*, by distinction from the larger portion of the continent so called.



The Brook Kedron. Palestine.

Hermon, mentioned in Scripture, reaches an altitude of 9,200 feet, and its summit is covered with snow during a greater part of the year.

Rivers. The chief rivers of Syria are the Orontes and the Jordan. The Orontes rises in the upper portion of the valley of Coele-Syria, and flows north as far as Antakia (Antioch), where it curves west, finally entering the Mediterranean Sea. The Jordan rises on the slopes of Mount Hermon, and flows to the Dead Sea. It is only 70 miles long, but the course of the river is so winding that it exceeds 200 miles between the same points. The course of the Jordan is very swift, and there are numerous rapids, which render it unnavigable.

Lakes. The principal are the Dead Sea¹ and the Lake of Tiberias.²

The Sea (or Lake) of Tiberias is a body of fresh water. The river Jordan passes through it. The valley of the Jordan is intensely hot, owing to its great depression below the country on either side.

The Dead Sea consists of water which is intensely salt, so much so as to render it unfit for the support of animal life.

Cities. The chief cities of modern Syria are Aleppo, Damascus, Antioch, Jerusalem, Tripoli, Jaffa.

Damascus is now the largest inland city of Syria, and is a great center of the caravan trade.

Jerusalem stands on a rocky platform, inclosed on three sides by deep ravines, about midway between the Mediterranean and the Dead seas. It has for centuries been a mere Turkish town, but the recent persecutions in Russia have caused an enormous influx of Jews into Palestine, and there are now over 50,000 of them in Jerusalem alone.

Bethlehem, where Christ was born, is a few miles south of Jerusalem.

Hebron is farther south. Jaffa, the ancient Joppa, on the coast, is the port of Jerusalem, and a place of some trade. The first railroad train on the road from Jaffa to Jerusalem was run on September 13, 1892.

Nazareth is north of Jerusalem, and is five miles distant from the base of Mount Tabor.

Gaza, in the southwest of Palestine, occupies the site of the ancient Gaza, one of the chief cities of the Philistines.

Baalbec lies to the northwest of Damascus. It is the site of the ancient city of Heliopolis, and still exhibits the remains of its ancient temples.

Palmyra, the Tadmor of Scripture, northeast of Damascus, has the beautiful remains of an ancient temple of the sun.

¹ The proportion of saline ingredients is about 25 per cent, —that is, seven times the usual proportion of salts in the waters of the ocean (three or four per cent).

² The Sea of Tiberias is also called the "Sea of Galilee," "Sea of Gennesaret," "Sea of Chinnereth."

COUNTRIES ON THE EUPHRATES AND TIGRIS.

These countries comprehend a high table-land, called the plateau of Armenia, which lies at an elevation of 6,000 feet above the sea, and the mountains by which it is crossed reach upwards of 4,000 feet above its level, so that their summits are more than 10,000 feet above the sea.

Rivers. The Euphrates and the Tigris are the important rivers of this region. The Euphrates, which is 1,700 miles long, is the largest river in western Asia. The Tigris, 1,100 miles long, joins the Euphrates about 100 miles above the Persian Gulf.

Lakes. Lake Van, within the Turkish portion of the plateau, is 80 miles long and 30 broad. As the lake has no outlet, its waters are salt.

Cities. The city of Erzerum stands near a high plain, near one of the sources of the Euphrates.

Kars, noted for its gallant defense in the wars of 1855 and 1877, lies east of Erzerum.

The town of Van stands on the eastern shore of the lake called by its name.

Bagdad, on the Tigris, is the great city of this region, and is superior in size and population to any other city in the eastern division of Asiatic Turkey.

Among the many ancient sites which belong to the lands that are watered by the Euphrates and the Tigris are Nineveh and Babylon. The treasures of ancient art brought within recent years from Nineveh have enriched our museums. The remains of Babylon have not yet been fully explored.

QUESTIONS ON ASIATIC TURKEY.

How does Asiatic Turkey compare with Turkey in Europe? Name its three distinct divisions. What does "Asia Minor" mean? What is meant by the Levant? Describe the island of Cyprus. Tell some interesting facts about Rhodes. What is meant by the Colossus of Rhodes? What is the principal river in Asia Minor? Locate Syria. Tell what you can about Palestine. What do you know about Mount Lebanon? What are the chief rivers of Syria? Describe the river Jordan. Describe the principal lakes. Describe the Sea of Galilee. Describe the Dead Sea. Name some of the vegetable and mineral productions of Asiatic Turkey. Name the various kinds of people that inhabit Asiatic Turkey. What animal takes the place of the horse in Asiatic Turkey? Name the principal cities. For what is Smyrna noted? Describe Jerusalem. Describe Bethlehem. Where is Nazareth? Why are all these places and names so interesting to us?



Damascus.

ASIATIC RUSSIA.

The Asiatic division of the Russian Empire embraces more than a third of Asia,—the largest of the continents,—and nearly one seventh of the total land area of the globe. It has a population of not more than eighteen millions,—an average of only three persons to the square mile.

ASIATIC RUSSIA includes three distinct divisions; namely, Siberia, Russian Central Asia, and Caucasia.

CAUCASIA.

CAUCASIA embraces the territory lying between the Black and Caspian seas. The larger part of the province is mountainous. The chain of the Caucasus Mountains rises above the snow line, and its higher regions exceed 10,000 feet above the sea. The climate is temperate, but one of great extremes. The production of petroleum forms the chief wealth of this territory.

The population of Caucasia is about seven and a half millions. The majority are Georgians, and other people of the Circassian stock. The inhabitants of the Caucasus are noted for their personal beauty. The Georgian and Circassian girls, once sold as slaves in the markets of Constantinople, were brought from this region.

The chief town of Caucasia is Vladikavkaz, on the southern terminus of the Russian railway system.

SIBERIA.

SIBERIA includes all the northern belt of the Asiatic continent. It is bounded on the north by the Arctic Ocean; on the east by the Pacific Ocean; on the south by the Chinese Empire; and on the west by Russia in Europe.

The area of Siberia is estimated at 4,830,000 square miles. The greatest length, from Bering Strait to the Ural Mountains, is 4,000 miles; and the greatest breadth, from north to south, is about 2,000 miles.



A Construction Gang on the Trans-Siberian Railway.

Siberia is a vast lowland plain. The Altai Mountains form its southern border.

The three great rivers of northern Asia are the Obi, Yenisei, and Lena, belonging to Siberia.

The climate is intensely cold, a moderate temperature being found only in the south.

Siberia has two natural productions of great value,—metals and furs.

It has a population of less than five million people. The native tribes are, for the most part, idolaters. Those dwelling in the eastern parts of the country exhibit a low and barbarous condition of life, and subsist by hunting and fishing. The people of Kamchatka are of short stature; they have few settled habitations, and are remarkable for the extent to which they use the dog for the purpose of draft, as we do the horse.

Tobolsk is a fine old town, on a high bluff at the junction

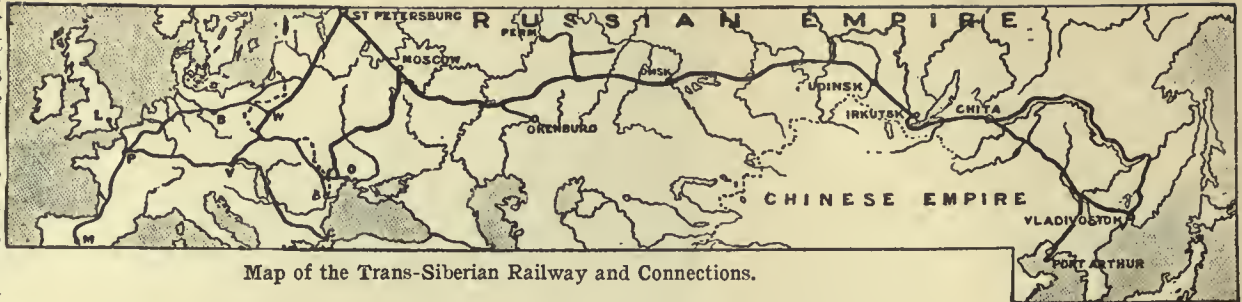


City and Port of Vladivostok. Pacific Coast Terminus of Trans-Siberian Railway. Nearest Port in United States is Seattle, Washington.

of the Irtysh and Tobol rivers. It was for centuries the capital of Asiatic Russia. Vladivostok is the chief naval station of Russia on the Pacific, and is a strongly

fortified port, and the Pacific coast terminus of the great Trans-Siberian railway.

The great railroad, connecting Siberia and Russia, which is now building, will rapidly change the commercial features of this country.



Map of the Trans-Siberian Railway and Connections.

RUSSIAN CENTRAL ASIA.

RUSSIAN CENTRAL ASIA includes the whole of the vast region which extends from western Siberia on the north to the borders of Afghanistan and Persia on the south. It includes two of the five general governments into which the Asiatic part of the empire is divided.

The entire region contains only five and a half million inhabitants. The people are composed mostly of nomadic tribes, who roam with their herds over the steppes, or plains. Millions of sheep and goats are reared; horses, camels, and cattle are numerous.

KHIVA.

KHIVA, a Russian vassal state, south of the Sea of Aral, has an area of 22,000 square miles, with a population of about three quarters of a million. The people are of Turkish origin.

BOKHARA.

BOKHARA is a Russian vassal state containing about 92,000 square miles, with a population of about two and one half millions.

The capital, Bokhara, lies within the fertile valley of the Zarafshan, and is only a few miles from the Trans-Caspian Railway.

QUESTIONS ON ASIATIC RUSSIA.

Name three distinctive divisions of Asiatic Russia. Describe Caucasasia. Describe Siberia. What are the natural productions of Siberia? Tell what you can about Kamchatka. Of what race are the people? Describe Vladivostok. Why is it of great importance to the people who live near the coast? Describe the Trans-Siberian railroad. Describe Russian Central Asia. What about the people? What occupations do they follow? What about Khiva? What about Bokhara?

PERSIA.

PERSIA is a country of western Asia. It contains an area of 682,000 square miles. The Caspian Sea on the north, and the Persian Gulf and the Gulf of Oman on the south, wash the shores of Persia.



Surface. The interior of Persia is a plateau, elevated from three thousand to four thousand feet above the sea, and bordered on three sides by mountain chains. Part of the interior plateau is a region called the Great Salt Desert.

Rivers. There are but few rivers, the principal one being the Karun River, and the only one navigable for sea-going vessels.

Climate. The climate of Persia exhibits great extremes. The shores of the Persian Gulf are among the hottest regions in the world. The mountain valleys possess a delightful and equable climate, and are the most fertile portions of Persia.

Productions. In the elevated valleys the vine, fig, watermelon, and peach abound, and a rich vegetation clothes the sides of the hills. Wild flowers grow abundantly, such as the narcissus, iris, and the asphodel.

Inhabitants. Persia has about nine million inhabitants. Only about one quarter are of the pure Persian race. The rest are Turks, Kurds, Arabs, and other wandering tribes.

Religion. The religion is mostly Mohammedanism.

Education. In no other country in Asia, except China, is education so general.

Industries. Although the country is largely an absolute desert, most of the people are engaged in agricultural and pastoral pursuits, and the manufacture of silks, carpets, shawls, and arms is carried on.

Government. The government of Persia is a despotic monarchy, the sovereign being called the Shah.¹

QUESTIONS ON PERSIA.

Describe the natural features of Persia. Where do we find the hottest regions in the world? What are the productions of Persia? Describe the industries of Persia. How are the people of Persia governed?

ARABIA.

ARABIA² is a large country in the southwest of Asia, and forms the most westerly of the three vast peninsulas of southern Asia. It has an area of one and one quarter million square miles.

Natural Features. Arabia has mountain chains lying along its seaward borders,—west, south, and east. The highest peak of the Simai Mountains reaches 9,300 feet above the level of the sea. The Arabian Desert presents, for the most part, a gravelly or sandy surface, and is in some places covered with high and barren masses of hills, forming a rocky and stony wilderness.

Arabia has neither rivers nor lakes. There are a number of streams, which become rapid torrents during the season of rain, but are dry the greater part of the year.

Climate. The climate is hot and dry. Rain very seldom falls in this region.

Productions. The vine, fig, peach, and olive flourish in the most fertile parts, and the date palm grows in every oasis on the Arabian Desert.

¹ The Shah is officially styled "Shah-in-Shah," or King of Kings.

² Called by the Arabs "Jezereet El Arab," the peninsula of the Arabs.

Inhabitants. Arabia has about twelve million inhabitants. The Arabs of the desert are called Bedouins; they dwell in tents, and wander from place to place. Their wealth consists of sheep, goats, camels, and horses.

Religion. The Arabs profess Mohammedanism.

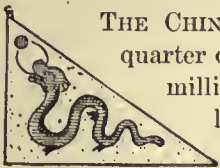
Industries. There is little manufacturing industry in Arabia. There is considerable trade carried on by caravans. The camel is used as the beast of burden.

Government. The people of Arabia are divided into tribes, the government of which is patriarchal,—that is, the head of each tribe occupies the place of father of a family.

QUESTIONS ON ARABIA.

Locate Arabia. What can you tell about its mountains? Name its rivers, capes, and lakes. Describe its climate. What is an oasis? Describe the Arabian Desert. How are the people of Arabia governed?

THE CHINESE EMPIRE.



THE CHINESE EMPIRE extends over more than a quarter of Asia. It contains four and one half million square miles, or a twelfth of the entire land surface of the globe. The population is said to be four hundred millions.

CHINA.

CHINA is a large country of eastern Asia. It is divided from Mongolia by the Great Wall of China, a vast rampart of earth ten to thirty feet high, which runs over hill and valley for 1,250 miles, along the northern border line of China, and which was built to protect the country from Tartar invasion.

Coasts. The coast line of China is extensive, being upwards of 2,500 miles.

A vast number of islands skirt the coast, especially between the embouchures of the Canton and the Yangtze rivers.

The chief inlets are the Gulfs of Pechili and Liaotung, the Bays of Korea and Hangehau, and the Gulf of Tonkin.

The most important straits are the Strait of Pechili, between the gulf of the same name and the Yellow Sea; the Strait of Formosa, between the East Sea and the China Sea; and the Strait of Hainan, between the China Sea and the Gulf of Tonkin.

Islands. The principal islands belonging to China are

Hainan and Chusan. Hongkong is a British possession. Formosa now belongs to Japan.

Hainan, 180 miles long by 100 broad, lies in the south, between the China Sea and the Gulf of Tonkin. The coast districts are occupied by the Chinese, but the aboriginal and barbarous tribes of the interior are virtually independent. Its capital is Kienehan, a populous city on its northern coast. Its chief port, Kiungehan, on the southwest coast, is open to foreign trade.

Chusan, the largest of a group of islands off the entrance to Hangchow Bay, was taken by the British in 1840, and held for some time as a guaranty for the payment of the war indemnity.

Hongkong was ceded to Great Britain in 1842. It is hilly, well watered, and tolerably healthy; and its situation, off the mouth of the Canton River, gives it political and commercial importance. Its area is 30 square miles. Its population numbers about 221,500, of whom 211,000 are Chinese. The chief town is Victoria, on the north coast of the island.

Mountains. The greater part of China is mountainous. The mountains have a general east-to-west direction. The lofty mountain chain on the western border, which separates China Proper from Tibet, bears the name of Yunling.

Plains. The northeastern part of China forms the extensive lowland known as the Plain of China, which is 700 miles long, and covers an area of more than 200,000 square miles.

Rivers. The four most important rivers are the Yangtze, Hoangho, Sikiang, and Peiho.

The Yangtze, or "Blue River," is the longest river in the eastern half of the globe, and is navigable for large vessels to Ichang, 1,200 miles from the sea; and for 600 miles farther up, to the new port of Chungking,—the commercial capital of western China,—it is navigable for smaller steamers, while junks and small boats can ascend some hundreds of miles still farther up the river. Its total length is 3,200 miles, and at Hankau, 700 miles inland, it is fully a mile in width, but its depth and volume vary considerably with the seasons. This great river drains nearly a million square miles of territory.

The Hoangho, or "Yellow River," like the Yangtze, rises in the plateau of Central Asia, but is not so capable of navigation, owing to sudden changes of depth and volume, and of channel sometimes. Previous to the great floods of 1851-53, its outlet to the sea was about 100 miles north of the mouth of the Yangtze; but it then altered its course, and made an outlet into the Gulf of Pechili, 300 miles farther north than its former mouth.

The Sikiang is 900 miles long. Its estuary, the Canton River, is one of the most important commercial waterways in China.

The Peiho is formed by the confluence of several rivers at Tientsin.



Scenes in China.

1. Chinese Street Barber.
2. Port of Chungking.
3. Walls of Pekin.
4. Street in Pekin.
5. Native Stores.
6. Observatory.
7. Merchandise Service.

Productions. Of the natural productions, the tea plant is the most remarkable. It is a shrub of moderate size, which grows abundantly in the southeastern provinces of the country. The leaves are gathered at particular seasons, and, according to the period at which they are picked, and the process of drying which they afterwards undergo, they form either the black or green teas of commerce. The orange, mulberry, jujube, sugar-cane, and cotton plant are native to the soil. Good coal, iron, copper, lead, and tin abound. Mercury, also, is found. There are many valuable salt-wells in the Min River district of western China.

Education and Religion. Education is well advanced, and is very general. There is no national or state religion, but Confucianism is professed by the higher classes. The lower classes mostly profess Buddhism, while vast numbers are attached to the degrading superstitions of Taoism.

Industries. The great industries of China are agriculture, manufacturing, and commerce. The great mass of the people derive their subsistence from the soil. Rice is the chief article of food, and tea the universal beverage. Silk and cotton are among the most important manufactures. The silk-worm is a native of China. The manufacture of earthenware is of national importance, and the fact that we call our finer pottery "china-ware" shows the origin of the ware. The white-wax industry, and the manufacture of salt, are among the most important of the industries in western China. The carving of ivory, the making of tea-caddies, trays, and other lacquered ware, various works in metal, and the art of printing from raised blocks, indicate the skill and ingenuity of the Chinese artisan.

Commerce. The foreign trade of China, which has greatly developed within the last few years, is chiefly carried on with the United States of America and with the United Kingdom. New steamship lines have been established from Seattle and Tacoma, and from San Diego and other western coast ports of the United States. The article



Elevated Tramway to Victoria Peak, Hongkong.

most largely exported from China is tea, vast quantities going to the United States and Europe.

The most important ports for foreign commerce are Shanghai, Canton, Fuchan, Hankan, Swatan, Amoy, Tientsin, and Chifu.

Internal Communication. Interior trade is carried on by means of the magnificent rivers, which are connected by a network of canals. Railroads and telegraph lines are being rapidly extended.

Government. The government of China is an absolute despotism. The emperor is the recognized vicegerent of heaven, and father of all his subjects. The mandarins form nine different orders of rank.

Cities. There are many large cities, and the banks of the rivers literally swarm with human life.

Pekin, or the "Court of the North," the capital of the Chinese Empire, is in the northeastern part of the country, near the river Peiho, and not far from the Great Wall. Fifty miles farther down the same river is the great port of Tientsin, 640

miles from its mouth. Nankin, which is the "Court of the South," ranks second to Pekin.

Shanghai was first opened to European commerce in 1842, and has become the chief commercial emporium of China. Hankau, higher up the river, is the chief mart of the tea district in the interior.

Fuchan is a great tea port.

Canton, the "City of Perfection," was long the sole point of intercourse between the Chinese and the people of other lands, and the only mart of the tea trade.

TIBET.

TIBET is an inland country to the west of China Proper. It consists of a vast table-land, upwards of 15,000 feet above the level of the sea, and has an area of about 650,000 square miles. It has a population of about six million people, mostly Mongolians.

The industry of Tibet is almost wholly pastoral. Vast herds of sheep, mountain goats, and buffalos are reared.



Docks at Hongkong, China. Material from the United States for the Trans-Siberian Railway.

The fine hair of the Tibetan goat is woven into cashmere shawls. The real sovereign of the country is the Grand Lama, or high priest of the Buddhist religion, of which Tibet is the center. The capital of the country is Lassa, where the Chinese viceroy resides. Near Lassa is the great monastery where six thousand priests reside.

MONGOLIA.

MONGOLIA comprehends a vast region of Central Asia, one and one quarter million square miles in extent, between China and Siberia. This immense region has less than two millions population. It is a vast upland, which averages about 3,000 feet above the sea. It is the primeval home of the great Mongolian branch of the human family. Mongolia is a vast pastoral region, and the Mongol of the present day is a shepherd.

ZUNGARIA.

ZUNGARIA includes the wild and desolate region between the Thian Shan and the Altai Mountains.

EASTERN TURKESTAN.

EASTERN TURKESTAN is the most westerly division of the Chinese Empire.

MANCHURIA.

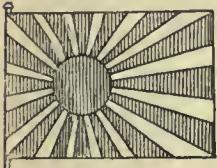
MANCHURIA is an extensive but little-known tract of country lying east of Mongolia.

KOREA.

KOREA, called by the natives the "Land of the Morning Calm," is a peninsula which stretches southward between the Yellow Sea and the Sea of Japan. The form of government is an absolute monarchy, and the administration is based on that of China. The capital is Seoul, in the interior of the peninsula, on the river Yalu.

QUESTIONS ON CHINA.

Locate the Chinese Empire. What is said about its population? Describe the Great Wall of China. Describe some of the islands of China. Describe Hongkong. To what country does Hongkong belong? Name some of the mountains of China. Name some of the rivers. What is the largest river? What are some of the natural productions of China? What about the education of the people of China? What is the principal article of production, used as a universal beverage? In what place did chinaware have its origin? What is said about the foreign trade of China? Tell what you can about the interior trade of China. Name several of the principal cities, and state for what are they noted. Describe Tibet. From what are cashmere shawls made? Describe Mongolia. What are the occupations of the people of Mongolia? Describe Korea. What is the capital of Korea?

JAPAN.

JAPAN, sometimes called the "Britain of the Pacific," is situated to the eastward of the Asiatic continent, the Sea of Japan separating it from the mainland. This ancient empire consists of an extensive chain of islands, the largest of which is Nippon, which means the "Land of the Sunrise." The total area of the Japanese Empire is over 162,000 square miles.

Coasts. The coasts of Japan are of great extent, and are indented with magnificent natural harbors, such as the Bay of Tokyo and the Gulf of Osaka.

Natural Features. All the islands are mountainous; the principal ranges in each extend parallel to the eastern coasts. Several of the higher mountains are volcanos. Fer-

tile plains and valleys, washed by numerous rivers, extend to the sea. The general height of the mountains is from 3,000 to 8,000 feet, but the extinct volcano of Fujiyama, about 60 miles from Tokyo, in the island of Nippon, reaches an elevation of 12,370 feet. There are several other active volcanos, and severe earthquakes are frequent.



Bay of Tokyo.

Climate. The climate is temperate and healthy, but hurricanes, storms, and dense fogs are of frequent occurrence in the surrounding seas, and in winter the western coasts suffer from violent polar winds, which render navigation dangerous. The warm winds bring abundant moisture, and give Japan an extraordinarily rich and flourishing vegetation.

Productions. Among the mineral productions are gold, silver, iron, copper, and tin; and in the vegetable world, trees that yield valuable gums and resins, with the tea plant and the mulberry. The latter is used as the food of the silk-worm.

Inhabitants. The total population is over forty-one million people. The people are mostly Buddhists, and the higher classes generally profess Confucianism.

Education. Elementary education is compulsory. Both the elementary and the higher schools are supported by government grants and local rates. There are several normal schools for teachers, and one university.

Industries. The Japanese are a skillful and industrious people, and have made marvelous progress in the



Typical Country Residence in Japan.

past few years, both in civilization and in the adoption of European arts and appliances. The careful culture of the land, the good roads, and the skillful manufacture of silks, cotton, porcelain, and japanned ware attest their industry and ingenuity. Rice, wheat, cotton, tobacco, and the tea plant and mulberry are grown.

Internal Communication. Interior trade is carried on by sea. The first railroad was built in 1872, and there are now 2,520 miles of railway open for traffic. There are thousands of miles of state and provincial roads, and excellent postal and telegraphic service.

Foreign Trade. The foreign trade with the United States, and with the United Kingdom, China, and France, has greatly increased.

Government. The government of Japan was formerly an absolute despotism, but is now a constitutional monarchy, the present Emperor, a wise and enlightened ruler, having enfranchised the people, and substituted constitutional government for monarchical absolutism. The First National Parliament of Japan met for the first time in the autumn of 1890, at Tokyo.

Cities. The capital of the islands is Tokyo, formerly called Yeddo, situated on the southeastern coast of Nippon, at the head of a fine bay. The city contains a large number of foreigners.

Yokohama is a modern town, several miles nearer the sea. It forms the port of Tokyo, and has become the chief mart of the foreign trade. Tourist travel between Yokohama, Seattle, Tacoma, San Francisco, and San Diego has increased with marvelous rapidity during the past five years.

Kyoto, formerly called Miako, on the same island, farther to the west, is a large city; and, until 1869, had been the imperial capital for over 1,000 years.

Osaka, south of Kyoto, and Kobe, are, after Yokohama, the most important of the "open" ports. Hakodate and Matsumai, on the

southern coast of the island of Yezo, are commercial towns of considerable importance.

Formosa, or "the Beautiful," was so called by the Portuguese. At the time of its transfer from China to Japan in 1895, the western districts only were completely subjugated. At Kelung, on the northern coast, coal mines are worked.

HISTORICAL NOTE.

The Portuguese traded with the Japanese in 1549, and were followed by the Jesuits. Commerce and conversion following, a policy of isolation was inaugurated, and fifty thousand converts massacred. Commodore Perry led a squadron of United States warships into the harbor of Yokohama in 1853, and wrested from the emperor the first of the treaties opening up the ports of the country to foreign commerce. The war with China in 1894 established the prestige of Japan as a power among modern nations.

QUESTIONS ON JAPAN.

Why is Japan called the "Land of Sunrise"? Where is it located? Describe its natural features. What is the climate of Japan? What are its productions? What is the population of Japan? What is the religion of the people? What are the industries? What is said of its foreign trade? Describe the government? What recent changes have taken place in the government? What is the capital of Japan?

BALUCHISTAN.

BALUCHISTAN is the general name given to a country on the Indian Ocean, between Afghanistan, Persia, and British India. It has an area of about 130,000 square miles. The population is about 500,000.

The inhabitants are engaged in agriculture, and are ruled by the Khan, who governs under the direction of the agent of the Governor-General of India.

QUESTIONS ON BALUCHISTAN.

Describe Baluchistan. How is the country governed? What is the principal industry?

AFGHANISTAN.

AFGHANISTAN is a mountainous state on the northwestern frontier of India. It is a country of mountain ranges, narrow defiles, and valleys limited in extent. The climate is noted for its extremes of heat and cold.

The population is estimated at about five millions, consisting of over four hundred different tribes.

The chief towns are Kabul, the capital, Kandahar, and Herat.

HISTORICAL NOTE.

Afghanistan has always been in an unsettled state, and the various tribes are more or less independent. Afghanistan was invaded by the British army in 1838 to settle internal feuds, but in 1841 the army was destroyed. A retributive force was then sent to the country, and the Afghans fairly subdued. Being a border state, Afghanistan is of great importance to Great Britain against the ambitious Muscovite.

QUESTIONS ON AFGHANISTAN.

Describe Afghanistan. What army invaded the country? How are the people governed? Name the chief cities.



One Hundred Steps, Yokohama.

THE INDIAN EMPIRE.

THE INDIAN EMPIRE includes the three great peninsulas of southern Asia, with large territories on the eastern side of the Bay of Bengal. The total area is 1,800,000 square miles, while the population is 288,000,000.

INDIA.

INDIA PROPER, or HINDUSTAN, extends from the Himalaya Mountains to Cape Comorin, and from the Sulaiman Mountains to the head of the Bay of Bengal. India Proper has an area of 1,250,000 square miles.

Coasts. The coasts of India are regular and unbroken, deficient in good harbors, and so exposed and surf-beaten as to be, in many parts, extremely dangerous to approach. The length of coast line is about 3,600 miles. Portions of the coasts have special names; as, the Orissa, the Goleonda, the Coromandel, and the Malabar coasts.

Islands. The principal islands are Ceylon, the Laccadives and Maldives, and the Andaman and Nicobar Islands. Ceylon has an area of 25,364 square miles, and a population of over three millions. The interior is mountainous; the rivers are numerous, and there are extensive forests of valuable woods. The climate is salubrious, and the natural productions are tea, coffee, rice, cinchona, cinnamon, and tobacco.

Mountains. On the north are the Himalaya Mountains, the loftiest in the world, the exterior ranges of which rise abruptly from the Great Plain of Hindustan, watered by the Indus and the Ganges. The highlands of central and southern India are everywhere seamed by irregular valleys drained by numerous rivers. The Himalaya Mountains extend



The Himalayas.

for 1,500 miles in a well-defined line along the northern border of India. Mount Everest, 29,002 feet above the sea, is the highest mountain in the world. All the higher parts of the Himalayas are covered with perpetual snow.

Plains. The Great Plain of Northern India extends across the country between the northern table-land and the Himalayas. Its southeastern slope is drained by the Ganges, and its southwestern slope by the Indus.

Rivers. The rivers are divided into two great sections, those draining the southeastern slope flowing into the Bay of Bengal, and those draining the southwestern counter-slope flowing into the Arabian Sea.

The Brahmaputra rises on the northern slopes of the Himalayas. It is 1,680 miles long, and in its lower course divides into several channels.



Great Banyan Tree, Calcutta.

The Ganges¹ rises in the southern slope of the Himalayas, and, after a southerly course of 1,500 miles, enters the Bay of Bengal. The Ganges is navigable for more than 1,300 miles above its mouth.

The Indus rises in the table-lands of Tibet, and has a course of 1,800 miles. The district drained by the Indus and its tributaries is called the Punjab. The Indus is navigable 900 miles from the sea.

Climate. The climate of India is hot, except in the high mountain regions, where a cool temperature results from the elevation above the sea.

Productions. The natural productions are rich and varied. The vegetable products are of high value. The animals are the domestic and wild elephant, the maneless lion, the tiger, leopard, wolf, hyena, rhinoceros, buffalo, wild ass, deer and other game, and monkeys, as well as the camel, the yak, and the Kashmir goat.

Inhabitants. Of the population of India, which amounts to 288,000,000, upwards of 220,000,000 are under direct British control. Six sevenths of the people belong to the Hindu race. The Hindus are followers of the Hindu trinity, of which Brahma, Vishnu, and Siva are the members.

Education. Education is making some progress, and there are many thousands of primary schools, a large number of secondary schools, and colleges, and five universities.

Industries. Agriculture has always been the chief industry of India, but there are important native manufactures of fine textile fabrics and metal wares. The mass of

¹ The work done by the Ganges, as the water-carrier and the fertilizer of the densely populated provinces of northern India, from its source in the Himalayas to its mouth in the Bay of Bengal, entitles it to rank as the foremost river on the surface of the globe, and fully excites the affectionate reverence and the divine honors paid to it by the Hindus. A great river like the Ganges has three distinct stages in its life from its source to the sea. In the first stage it dashes down the mountain sides, cutting out for itself deep gullies in the solid rock and plowing up glens and ravines upon its way. The second stage is where it emerges from the mountains on to the plain, running then more peaceably along the valleys, and seeking out for itself the lowest levels. Here it receives the mud and drainage of the country around, absorbs tributaries, and rolls forward with an ever-increasing volume of water and silt. Finding its speed checked by the equal level of the plains, and its bed raised by its own silt, it splits out into channels like a jet of water suddenly obstructed by the finger, or a jar of liquid suddenly dashed upon the floor. Each of the channels thus formed throws out, in turn, its own channels to right and left. In the case of the Ganges, the country which these many offshoots inclose forms the delta of Bengal.

the population live mainly upon rice, millet, and pulse,¹ and these are extensively cultivated. The culture of the poppy, for the extraction of opium, is pursued in the valley of the Ganges, and also in other places. Wheat is grown largely for export. Tea is now more extensively imported into Great Britain from India than from China.

Commerce. The trade of India with the United Kingdom is more than half its total trade.

Ports. The seven great ports of India are Bombay, Calcutta, Rangoon, Madras, Kurrachee, Tuticorin, and Chittagong.

Government. Almost the whole country is subject to the direct rule of officers appointed by the British government. The "tributary" or "feudatory" states are all more or less dependent upon British power.

Cities. India has a wealth of cities famous in the history of the country, civil, military, and religious. Calcutta is the capital of British India. It stands on the east bank of the river Hugli, the principal arm of the Ganges, about one hundred miles from the sea. It has over one million inhabitants.

Bombay has an excellent harbor, one of the best in India, and is rapidly becoming the chief commercial center of the empire. It was one of the earliest English possessions in the East, having been part of the wedding dowry given to Charles II. with his Portuguese bride, Catherine of Braganza, in 1661.

Allahabad, at the junction of the Jumna and Ganges, and Benares, on the north bank of the Ganges, are two of the largest inland cities of India, and are among the sacred cities of the Hindus.

HISTORICAL NOTE.

The history of India is the record of a succession of waves of conquest, and almost always from the northwest. The first Aryan invaders are said to have enslaved or driven out the aborigines, but the earliest authentic facts come from the Greek historians, who tell us, that, while there was a general unity of the races inhabiting the country, India never formed a solid empire. Alexander the Great invaded the country; the Mussulmans kept up a succession of inroads; Tartar hordes swept over India, leaving a name remembered by the Hindus to the present day. The year 1498 brought Vasco da Gama, the Portuguese navigator, to its shores, and his countrymen retained a monopoly of trade for more than a century, when they were supplanted by the English East India Company. The cession of Bombay to this company by Charles II. led to further settlements by the English, and the nineteenth century has witnessed the extension of British rule or influence over all India.

QUESTIONS ON INDIA.

Locate the Indian Empire. Give the other name of India. What are the natural features of this country? For what are the Himalaya Mountains noted? Where is the highest mountain in the world? Describe the Ganges. Describe the climate of India; its animals; the products. To what race do the people belong? Tell what you can about the education of the people. Why do the people largely abstain from animal food? What do the masses of the people live upon? What is said about the culture of the poppy? What are the great ports of India? What is its capital? Name some of the other principal cities of India.

¹ It is a mistake to suppose, as is commonly the case, that the Hindus abstain altogether from animal food. The ox is sacred, and its flesh is never touched, and the flesh of swine is regarded with horror, both by the Brahmin and the Mohammedan. But mutton is eaten without hesitation, and fish is largely consumed, whenever it is cheaply obtainable. In all hot countries, however, vegetable diet is preferred by the mass of the people. The Greeulander, who consumes twelve pounds of meat in a day, and the Hindu, whose chief nutriment is derived from rice, acts, in each case, upon the instinctive impulses that are always associated with climate and other conditions of physical geography. (Hughes.)

FARTHER INDIA.

FARTHER INDIA, or the INDO-CHINESE PENINSULA, forms the southeastern division of the Asiatic continent. With the exception of Siam, the peninsula is divided between Great Britain and France,—the British on the west, the French on the east, and Siam between. The total area is about 821,000 square miles, and the population about 35,000,000. The coasts are extensive, with fine harbors.

Climate. The climate is hot, and often unhealthy. The rains are abundant, but are confined to a brief period of the year.

Productions. The productions are valuable. They consist of valuable woods, drugs, spices, and gums. The mineral wealth is considerable.

Inhabitants. The Indo-Chinese closely resemble the Chinese, and are more robust than the Hindus. The language is closely allied to the Chinese and Tibetan tongues.

Industries. The principal are the sugar-cane, cotton, indigo, and tobacco, and the mulberry for the silk-worm. Rice, the chief article of food, is extensively cultivated.

BRITISH INDO-CHINA.

BRITISH INDO-CHINA includes Burma (Upper and Lower); the Straits Settlements (so called from their position on the Strait of Malakka); and the native protected states of the Malay Peninsula.

BURMA.

BURMA is politically a province of British India, and includes the western division of the Indo-Chinese Peninsula. The area is about 230,000 square miles, and the population about 10,000,000.

The political and commercial capital is Rangun, in Lower Burma; Mandalay is the chief town of Upper Burma.

THE STRAITS SETTLEMENTS.

THE STRAITS SETTLEMENTS are on the western side of the Malay Peninsula, which is divided between Siam and Great Britain, and include Penang, Wellesley Province, the Dindings, Malakka, and Singapore. They have an area of 1,500 square miles, and a population of 600,000.

Singapore is the chief town, upon an island of the same name, 27 miles long and 14 broad. The harbor is defended by strong batteries. Malakka is the oldest of the Straits Settlements.

SIAM.

SIAM occupies the central part of the Indo-Chinese Peninsula. The area of Siam is about 200,000 square miles. The population is estimated at 6,000,000, composed of Siamese, Chinese, Malays, and other races.

The government is an absolute monarchy.

The capital is Bangkok, on the Menam River, about 20 miles from the sea.

FRENCH INDO-CHINA.

FRENCH INDO-CHINA is the eastern, and by far the most populous, part of the Indo-Chinese Peninsula. It includes the colonies of Cochin China and Tonkin, and the protectorates of Cambodia and Anam. The total area is about

270,000 square miles, and the population is estimated at 21,000,000.

The principal towns are Saigon, in Cochin China, and Hné, in Tonkin.

QUESTIONS ON FARTHER INDIA.

Describe Farther India. What is said of the climate? The productions? The inhabitants? The industries? Describe British Indo-China. Name the capital of Lower Burma. Give the chief city of Upper Burma. What is meant by the Straits Settlements? Give the chief towns. Describe Siam. Name the capital. Where is French Indo-China? Give the principal cities.

THE EAST INDIAN ARCHIPELAGO.

THE EAST INDIAN or MALAY ARCHIPELAGO is an insular region to the southeastward of the Asiatic continent. The islands of Borneo, Sumatra, Celebes, Java, the Philippines, and the Moluccas or Spice Islands, are included in this region.

Productions. The natural productions are rich in the extreme. Gold, tin, and precious stones in the mineral kingdom, with rich fruits and spices in the vegetable world, form the principal products of these beautiful islands. There are about four hundred productive tin mines in the islands of Banca and Billiton. The tree which yields gutta-percha is a native of Borneo. The nutmeg and the clove belong to the smaller islands of the Moluccas. Sago is also produced, and sugar, tobacco, tea, coffee, and rice are grown and exported.

Climate. The climate of the archipelago is hot, but the intense heat of the torrid zone is moderated by the influence of the surrounding seas.

Inhabitants. The entire population of the Malay Archipelago is probably not less than forty millions. The island of Java alone has over twenty millions, and the Philippines contain upwards of seven millions.

SEARCH QUESTIONS.

Location. Find the Rock of Gibraltar. North Cape. Find the latitude and longitude of London. Tokyo. Boston. Seattle. Are these cities in nearly the same latitude? Name five of the principal colonies of the British Empire. Which is the smallest country in Europe? From the map, find the largest continent on the globe.

Rivers. Draw an outline map of Europe and Asia, forming Eurasia, and locate ten of the principal rivers. Find the three great rivers of Siberia. Make a list of ten navigable rivers of Europe. Locate the Rhine. The Tiber. The Thames. The Seine.

Population. What country in Europe has the densest population? Compare the population and the area of Great Britain with the state of Washington. Give the population of Russia, the British Empire, the Chinese Empire, Germany, France, and Spain. In what respect do the inhabitants of Asia differ in personal appearance from the people of Great Britain? Where do the people live who use the dog for draft purposes, where we use the horse?

Natural Productions. Compare the natural products of Asia with the natural pro-

Commerce. The Americans, English, Dutch, and Chinese are extensively engaged in trade.

More than three quarters of the East Indian Archipelago belong to Holland; the remainder to Great Britain and the United States of America, with the exception of part of the island of Timor, which belongs to Portugal.

THE DUTCH EAST INDIES.

THE DUTCH EAST INDIES include all the Larger Sunda Islands, with the exception of Borneo.

The total area of the Dutch East Indies is 736,000 square miles. The population is over 33,000,000.

Java is about 50,000 square miles in area, and a chain of lofty volcanos runs through the entire length of the island. Java is probably the very finest and most interesting tropical island in the world, and is undoubtedly the most fertile, the most productive, and most populous of the tropical islands. The chief port is Batavia. Borneo, the fourth largest island in the world, is about 800 miles in length and 600 miles in width, and has an area of 280,000 square miles.

THE BRITISH EAST INDIES.

THE BRITISH EAST INDIES include the richest portion of Borneo, and the little island of Labuan. Labuan is a crown colony; and the territory of the British North Borneo Company, the sultanate of Brunei, and the province of Sarawak are British protectorates.

QUESTIONS ON THE EAST INDIAN ARCHIPELAGO.

Name the principal islands of the East Indian Archipelago. What are the productions of the mineral kingdom in these islands? Of the vegetable world? Describe the climate. What is the population? To what countries do the islands of the archipelago belong? What do the Dutch East Indies include? What is the population? What is said of Java? Name the chief ports of Java. What is said about Borneo? Of what are the British East Indies composed? How are they governed?

ducts of France. Compare the products of the northern coast of Eurasia with those of the southern coast. Compare the principal products of Ceylon, south of India, with the products of Iceland, north of the British Isles. What countries in Europe produce about the same products as the United States?

Industries. From where do we get the finest marble in the world? What country is noted especially for its manufacture of silk? Name the principal ship-building places of the world. What cities are noted for the production of fine carpets and laces? What place in Europe is noted for fine glassware? Name the principal parts of the world noted for the production of petroleum.

Commerce. Name ten of the great commercial ports of the world. Give several of the most important exports shipped from each. Tell how railroads, canals, and oceans aid commerce. What countries are noted for canals? What great city in America has recently extended its commercial facilities by means of a canal? What great railroad is now under construction in the northern part of Eurasia? What port in the United States is the nearest to its eastern terminus?



Railroad Map of Europe.



AFRICA.

AFRICA¹ is the southwestern portion of the Old World, and is the only one of its three continents that stretches to the southward of the equator.

This continent forms a vast peninsula, connected with the Asiatic continent by the Isthmus of Suez.



Outline Map of Africa.

Boundaries. Africa is bounded on the north by the Mediterranean Sea; on the west by the Atlantic Ocean; on the south by the Atlantic and Indian oceans; and on the east by the Red Sea and Indian Ocean.

Extent. Africa is more than three times larger than Europe, but nearly a third smaller than the Asiatic continent. Its area is about twelve million square miles. The extreme points of the continent are: Cape Blanco on the north, Cape Agulhas on the south,—a distance of 5,000 miles; and Cape Verde on the west, Cape Guardafui on the east,—a distance of 4,850 miles.

Surface. The entire continent of Africa may be regarded as a vast plateau of moderate elevation, inclosed by

a narrow, low-lying coast belt, and edged by ranges of mountains or hills. The elevation of this large inland plateau declines from about 4,000 feet in the south to less than 1,500 feet in the north.

Mountains. The loftiest mountains in Africa are Kilimanjaro (19,680 feet high), a little to the south of the equator; Kenia, 18,000 feet high, on the equator. The Atlas Mountains, in the north, are important. There are lofty mountains in Abyssinia and elsewhere in the continent.

Rivers. Africa is noted for the absence of permanently flowing rivers. There are, in Africa, two river systems,—those of the Atlantic and Indian oceans. The others are continental rivers, and belong to the regions of inland drainage.

The Nile has a course of 3,500 miles, and is the most important.

The Senegal, Niger, Kongo, Zambezi, Limpopo, and the Tugela are all large rivers.

Lakes. Africa contains some of the largest fresh-water lakes in the world.

The Victoria Nyanza is second in size only to Lake Superior.

Lake Tanganyeka is 400 miles in length and about 50 in breadth.

Lake Nyassa, 350 miles long, with an average breadth of 38 miles, has a mean depth of 600 feet.

Productions. The natural productions of Africa are almost as rich and as varied as those of any other continent. Peculiar plants are numerous, while animals are of great variety. Only in the south are minerals plentiful.

QUESTIONS ON AFRICA.

Locate Africa. What is the form of this continent? How is it bounded? What is the area of Africa? How does it compare in size with Europe? With Asia? What is the length of Africa? The breadth? Describe the surface of Africa. What are the loftiest mountains of Africa? What are the principal rivers? Name the largest lakes. Is Africa rich in natural productions? What about African plants? Are there many varieties of animals in Africa? Which part of Africa has the greatest quantity of minerals?



The Nile Delta and the Suez Canal.

¹ The name "Africa" was given by the Romans to the Carthaginian territories (Tunis, etc.), and was extended to the whole continent.

THE BARBARY STATES.

THE BARBARY STATES¹ include the empire of Morocco, the French colony of Algeria, the French protectorate of Tunis, and the Turkish province of Tripoli.

The inhabitants include the Berbers, who live in the mountains and villages of the Atlas region; the Moors, who live in the cities; and the Arabs, who live in their own encampments in the interior. Negroes, Jews, as well as French, Spaniards, Italians, and Maltese, are found in numbers in Algeria and Tunis.

The natives of northern Africa are generally Mohammedans in religion, and in manners and usages are but a degree removed from barbarism.

Northern Africa, like western Asia, exhibits traces of decay from a past condition of greatness and prosperity. The frequent remains of Roman roads, temples, and theaters bear testimony to the greatness of Roman power. Near Tunis are the remains of Carthage, once the rival of Rome. Farther to the eastward are the ruins of Greek cities.

MOROCCO.

MOROCCO, the most westerly of the Barbary States, has an area of about 314,000 square miles, and a population of from five million to eight million people.

The form of government is an absolute despotism, but some tribes recognize only the authority of their own chiefs.

The fertile coast region is peopled by the Moors, who conquered the country at the end of the seventh century.

The vegetable productions are wheat, barley, corn, and fruits. The principal exports are almonds and wool. Morocco leather is manufactured at Mekinez.

¹ So called from the Berbers, the original, or at any rate the earliest known, inhabitants of northern Africa.

Fez is the chief capital of the empire, but the Sultan also resides at the cities of Morocco and Mekinez.

Tangier is at the entrance to the Strait of Gibraltar, and is an important city. The fortress of Ceuta, opposite Gibraltar, is occupied by the Spaniards.

QUESTIONS ON MOROCCO.

Describe Morocco. What are the vegetable products? Where is Morocco leather manufactured? What is the capital of Morocco? Where is Ceuta?

ALGERIA.

ALGERIA is the most important of all the colonial possessions of France. It has an area of 123,000 square miles, and a population of about four million people.

About a twenty-fifth part of Algeria is cultivated. Wheat and wine are produced. The principal article of export is the "alfa," or esparto grass, used for making paper. Iron, lead, and copper are also largely exported.

The chief towns of Algeria are Algiers, Oran, Bona, and Constantine. Algiers, the capital of Algeria, rises in the form of an amphitheater, along the slope of a steep hill on the Mediterranean coast. A railway connects Algiers with the port of Oran.

QUESTIONS ON ALGERIA.

Locate Algeria. What are the principal towns of Algeria? Locate Tunis. Where is the site of the ancient city of Carthage?

TUNIS.

TUNIS is physically like Algeria, and politically is controlled by the French Foreign Office. Its area is about 45,000 square miles. It has a population of about a million and a half. Wheat, olive oil, and barley are the exports.

Tunis, the capital, is connected by rail with its port, Goletta. It has a population of 145,000, of whom 30,000 are Jews. Thirteen miles northeast of Tunis is the site of the ancient city of Carthage.

QUESTIONS ON TUNIS.

Locate Tunis. By whom is it governed? What is the population? What are the products? Name the capital.

TRIPOLI.

TRIPOLI, or TRIPOLIS ("the three cities," from the three ancient towns of Sabrata, Oea, and Leptis Major), covers an area of half a million square miles, a great part of which is barren desert. The population is one million.

The productions include tobacco, fruits, cotton, grain, etc.

FEZZAN.

The large territory of Fezzan, lying to the south of Tripoli, is a kind of oasis, and is fertile by comparison with the desert region by which it is bounded on all sides.

BARCA.

BARCA, east of Tripoli, is a rocky plateau, with some well-watered, fertile valleys.

Tripoli is a province of Turkey. Fezzan is ruled by a subordinate governor. Barca, once a distinct province, is now a part of Tripoli.

QUESTIONS ON TRIPOLI.

What is meant by the name "Tripoli"? Locate Tripoli. What are the products? Where is the territory of Fezzan? Of Barca?



City of Tangier,

EGYPT.



EGYPT is the lower portion of the valley of the Nile, extending from the Mediterranean Sea to Akashe, a direct distance of 750 miles.

Extent. The area of Egypt is estimated at about 400,000 square miles.

Including the oases in the Libyan Desert, the northern portion of Nubia, part of the Red Sea coast, the Sinai Peninsula, and the Land of Midian in Arabia, the area is not less than a half-million square miles; but these regions afford little more than pasturage.

Natural Features. Two great natural features are the Nile and the Desert. The Nile overflows its banks annually, the river beginning to rise above its ordinary level in the month of June, and rises daily until the latter part of September, at which time almost the whole valley is under water. The waters afterwards gradually retire within their proper bed, leaving behind them a fertilizing deposit, which produces the abundant harvests of Egypt. The rise of the Nile is caused by the heavy rains of Abyssinia and the highland regions to the southward. The Nile divides into two branches about 120 miles from the sea, and these are called the Rosetta and Damietta branches. The two branches inclose a delta.¹

Climate. Egypt has a warm and dry climate. Except in the delta, rain seldom falls. The intense dryness of the air has been the means of preserving from decay the monuments of ancient art in which Egypt abounds.

Inhabitants. Egypt has seven million inhabitants, the majority of whom are of the Arabic race. The descendants of the ancient Egyptians are about half a million in number. There are Turks, Armenians, Syrians, Jews, and Europeans in the towns. The foreigners in Egypt number one hundred thousand.

Religion. The Egyptians are generally Mohammedans, except in the case of the Copts, the descendants of the ancient Egyptians, who form a Christian Church.

Industries. The products are flax, hemp, cotton, tobacco, sugar, coffee, saffron, mulberries, dates, wheat, and corn. The cotton and surplus corn of Egypt are sent to England.

Commerce. The trade of Egypt, both foreign and internal, has greatly increased since the opening of the Suez

Canal,¹ which is the great highway between Europe and the East.

Government. Egypt is nominally a dependency of Turkey, but the government of Egypt is carried on under the direct control of England, and the country is occupied by British troops. Egypt has advanced greatly in wealth and prosperity under the British occupation.

Towns. Cairo is an important center of traffic between the east and the west. It owes its origin to the Arabic conquerors of Europe, by whom it was founded in the year 970.

Alexandria, named in honor of Alexander the Great, who founded it in the year 332 B. C., was for a long time the chief center of Greek learning. Since the British occupation, it has become of importance as the center of the trade of Egypt with foreign countries.

Rosetta, celebrated as the place of discovery of the "Rosetta Stone," which enabled students to decipher the writing on the monuments and temples of ancient Egypt, is on the western side of the Nile.

Suez, on the Gulf of Suez, at the head of the Red Sea, is an important city.

Port Said is the northern terminus of the Suez Canal.

Antiquities. The Pyramids of Ghizeh and the ruins of Thebes ("the hundred-gated") are two localities of great interest. The Pyramids are within a few miles' distance of Cairo, and the colossal figure of the Sphinx is in that neighborhood. The ruins of Thebes are in a higher part of the Nile valley, within Upper Egypt.



Cairo.

The Libyan Desert, to the westward of the Nile, contains several oases, which are regarded as forming a part of Egypt. The Oasis of Siwah contains a celebrated fountain, the supposed "Fountain of the

¹ Since 1887, vessels of all nations, whether armed or not, may pass through the canal, in peace or war. Nearly four thousand vessels of all classes make the passage every year. Work on the canal was commenced in 1859, and was finished in 1869. The total length, from Port Said, on the Mediterranean, to Suez, at the head of the Red Sea, is 87 miles,—66 miles of actual canal and 21 miles of lakes. By the use of electric light, vessels can now pass through it by night as well as by day. The harbor at Port Said is artificially formed. The entire cost of the canal was over one hundred million dollars.

¹ It was to the region inclosed between the different arms of the Nile that the term "delta" was originally applied by the Greeks, in consequence of its forming a shape resembling the fourth letter of the Greek alphabet. It has become extended, in modern geography, to all similar tracts of land. The Danube, the Rhine, the Amazon, the Indus, and a great number of other rivers, form deltas.



Port Said.

Sun," and the ancient temple of Jupiter Ammon, which Alexander the Great visited.

HISTORICAL NOTE.

Egypt was the seat of the earliest civilization. The Pyramids were built in the twenty-fifth century B. C. The Persians conquered the country in the fifth century B. C. Alexander the Great made it a part of his empire and founded the city of Alexandria. In the first century B. C., Egypt passed under Roman rule, and after the lapse of six centuries, the Arabs conquered the country. The Arabs were succeeded by the Turks. In 1882 a military rebellion, headed by Arabi Pasha, broke out, and after its suppression by British troops the English remained in occupation.

QUESTIONS ON EGYPT.

Locate Egypt. What are the natural features of Egypt? Describe the Nile. Where did the term "delta" originate? What does the word mean? What is the climate of Egypt? Describe the inhabitants. What religion do the Egyptians follow? What are the products of the country? Describe the trade of Egypt. Describe the Suez Canal. What country controls the canal? What is the government of Egypt? Describe Cairo; Alexandria. For what is Rosetta noted? Describe the Pyramids.

THE EASTERN SUDAN.

THE EASTERN SUDAN includes the valley of the Nile, from the great lakes to the Egyptian frontier, and the territorial divisions of Kordofan and Darfur. This vast territory, which is now virtually under British control, has an area of about one million square miles.

Climate. The climate is more tropical than that of Egypt, and the vegetation greatly resembles that of the torrid zone.

Natural Features. The great features of this region are the Nile Valley and the Desert. The two branches of the Nile are known as the Blue Nile and the White Nile. On the southern frontier are the great lakes of the Nile, the Victoria Nyanza and the Albert Nyanza.

Inhabitants. This vast territory has about ten millions of people, consisting of Arabs and various negro tribes.

Commerce. The commerce of the Eastern Sudan is confined to transit trade, carried on by camel caravans. The exports of ivory are valuable.

Towns. Khartum, in Upper Nubia, situated at the junction of the Blue and the White Niles, was formerly the center of authority for the whole country. It will be forever famous for its heroic defense by General Gordon, and as the scene of his tragic death.

On the opposite side of the Nile is the fortified town of Omdurman, which is the capital of the Eastern Sudan, and is noted for the great battle in which General Kitchener overcame the Khalifa in 1898.

New Dongola, on the left bank of the Nile, is one of the most thriving of the Nubian towns.

QUESTIONS ON THE EASTERN SUDAN.

What is meant by the Eastern Sudan? It is under whose control? Describe the inhabitants. How is the commerce of this section of country carried on? What noted town is located in Upper Nubia? Where is Omdurman? and for what is it noted?

ABYSSINIA.

ABYSSINIA is the loftiest of all the plateau-lands of Africa. Some of the mountains reach 15,000 feet above the sea, and are covered with perpetual snow.

Climate. The climate of Abyssinia is intensely hot in the lower part, but temperate and healthy in the upland plains of the interior.

Productions. The soil is fertile, and cotton, sugar, coffee, etc., are produced in the lower valleys. On the higher grounds the various kinds of grain and fruits are extensively grown, and cattle and sheep are reared.

Inhabitants. Abyssinia Proper is estimated to have an area of 130,000 square miles, and a mixed population of nearly four millions.

Government. The ancient empire of Abyssinia, or Ethiopia, was formerly a powerful state, governed from the earliest times by an absolute ruler, styled the Negus Negusti, or "King of Kings." The country is divided into three great provinces: Tigre, in the north; Amhara, in the center; and Shoa, in the south. Gondar is the capital of Amhara, and Adowa the capital of Tigre. A noted town is the city of Axum, the "City of Abraham," the ancient capital of the Ethiopian empire, and still the crowded resort of priests and pilgrims. Licheh is the capital of Shoa.

QUESTIONS ON ABYSSINIA.

Locate Abyssinia. What is the climate? Describe the soil. What is the form of government? Name several of the important towns. Describe the "City of Abraham."

THE SAHARA.

The immense region of northern Africa to which the name SAHARA is applied, extends from the Atlantic Ocean to the Red Sea.

This great desert region has an area of over three million square miles, and a population of not over three millions of people, pastoral nomads and robbers. Dates, salt, ostrich feathers, gold-dust, and slaves are the only commercial products of this vast region.

THE SUDAN.

The name "Blad es Sudan," or "Country of the Blacks," of the old Arabic geographers was applied to the vast region to the south of the Sahara, and the term is still

used to indicate the belt of fertile and well-watered countries which lie within the zone of tropical rains, and form a startling contrast to the desert.

The inhabitants of the Sudan are not exclusively of the negro race. A large proportion are of mixed descent. The slave trade has always been the bane of the negro population of Africa.

The commercial products, beside slaves, are gold-dust, ivory, and ostrich feathers.

The three great divisions of the Sudan are the Eastern Sudan, the Central Sudan, and the Western Sudan.

In some parts of the Central Sudan the negroes have attained some skill in the manufacture of woven fabrics, copper, and metal ware. In other parts, rice and other cereals, and dates and honey, are exported. There are also manufactures of excellent leather goods, shoes, sandals, harness, etc.

QUESTIONS ON THE SAHARA AND THE SUDAN.

Describe the Sahara Desert. What are the products of the Sahara? What is the meaning of the name "Sudan"? Who are the inhabitants of the Sudan? What is said about the slave trade? What are the productions of the Sudan?

WESTERN AFRICA.

The western coasts of Africa, within the tropics, are a distinct natural region, extending through a range of between three thousand and four thousand miles along the Atlantic seaboard, from the borders of the Great Desert, in a northerly direction, to Cape Frio, south of the equator.

Owing to its position, and to its numerous rivers and streams, Western Africa has an unhealthy climate. The intense heat of a tropical sun, acting on the mass of vegetable matter, produces malaria and deadly fevers.

The products are gold-dust, ivory, ostrich feathers, palm oil, beeswax, and various gums.

The native inhabitants of Western Africa are nearly all negroes. Many Europeans are settled at various points.

The divisions of Western Africa are Senegambia, Upper Gambia, and Lower Gambia.

The political divisions of Western Africa include the colonies and protectorates belonging to Great Britain, France, Portugal, Germany, and Spain, and two independent states, — the republic of Liberia and the Kongo Free State.

LIBERIA.

The negro republic of Liberia was founded in 1822 as a place of refuge for freed slaves. The capital is Monrovia. The commercial products are coffee, palm oil, palm nuts, cocoa, sugar, arrowroot, ivory, and hides.

THE KONGO FREE STATE.

THE KONGO FREE STATE, founded in 1855, has an area of about 800,000 square miles, and includes the greater part of the basin of the Kongo River. The population is between ten millions and twenty millions.

The government of the Kongo Free State is carried on by the Central Government at Brussels, directed by the King of Belgium as the sovereign of the state, and by the local government at Boma, under a governor-general.

QUESTIONS ON WESTERN AFRICA.

What is said about the climate of Western Africa? What are its products? Describe the inhabitants. Where is Liberia? What is its capital? What are the products? Describe the Kongo Free State. When was it founded? Who is the sovereign?

EASTERN AFRICA.

EASTERN AFRICA includes the coast-lands from Delagoa Bay to the Gulf of Aden, together with the uplands to the east of the Great Lakes.

The whole of Eastern Africa is now partitioned among four European powers, — Portugal, Germany, Great Britain, and Italy. The islands have also been parceled out.

PORTUGUESE EAST AFRICA.

PORTUGUESE EAST AFRICA includes the coast province of Mozambique, and a limited portion of Zambesia.

Mozambique, the principal place in Portuguese East Africa, is a busy seaport on a coral islet close to the shore.

GERMAN EAST AFRICA.

GERMAN EAST AFRICA extends along the coast to the north of the Rovuma River, and stretches westward to the lakes of Nyassa and Tanganyika, and northward to the Victoria Nyanza and Mount Kilimanjaro.

The total area of this vast territory is estimated at 350,000 square miles, a third larger than Germany itself.

The population does not exceed two millions.

BRITISH EAST AFRICA.

BRITISH EAST AFRICA extends along the coast from the Umba River in the south to the Juba River in the north, a distance of 400 miles. Inland, the British "sphere of influence" extends westward beyond the Victoria and the Albert Nyanzas to the borders of the Kongo Free State.

Zanzibar is an island with an area of 625 square miles, and a population of 125,000. The town of Zanzibar is a free port, and has a population of 100,000. It is an active center of trade in the products of the island and those of the adjoining mainland.

ITALIAN EAST AFRICA

ITALIAN EAST AFRICA is the territory on the Somali Coast from the Juba River northward round to Cape Guardafui, and along the shores of the Gulf of Aden to the 49th degree of east longitude, and the Red Sea coast from Ras Kasar to the Strait of Babel Maudeb, together with portions of the region to the east of Abyssinia and the Juba River.

QUESTIONS ON EASTERN AFRICA.

Describe Eastern Africa. To what countries does Eastern Africa belong? Describe its products. Describe German East Africa; British East Africa. Where is the island of Zanzibar? What can you tell about the town of Zanzibar? Describe Italian East Africa.

SOUTHERN AFRICA.

The southern part of the African continent includes several territories under British rule, and two independent Dutch republics, together with the vast territory of German Southwest Africa.

BRITISH SOUTH AFRICA.

BRITISH SOUTH AFRICA includes the self-governing colony of the Cape,—the wealthiest and most important of all South Africa,—the colony of Natal, the crown colonies of Basutoland, British Bechuanaland, and Zululand, and the protectorates of Tongaland, Bechuanaland, and Zambezia.

THE CAPE COLONY.

THE CAPE COLONY derives its name from the Cape of Good Hope.¹ It has an area of 233,430 square miles.

Natural Features. The surface of the colony rises from the seaboard to the interior by a series of terraces, or steps, the seaward edges of which are marked by the long ranges of mountains and hills that extend across the country from west to east.

Mountains. The Nieuwveldt Mountains are the loftiest elevation in Southern Africa, and the highest point is Compass Berg, 9,000 feet above the sea.

Plains. The lower plains near the coast are watered and moderately fertile. The great plain that extends along the southern base of the Nieuwveldt Mountains has an arid and gravelly surface. The northerly portion of the province consists of extensive open plains, scantily watered.

Rivers. The principal rivers are the Orange and the Olifants, flowing into the Atlantic; and the Breede, Gauritz, Gamtoos, Great Fish, Keiskamma, and the Kei, flowing into the Indian Ocean.

The Orange River, which forms the northern border of Cape Colony, is about 1,200 miles long, but it has comparatively little volume of water, and is not navigable, except for small craft for about fifty miles above the bar at its mouth.

Climate. The climate of the Cape is temperate, dry, and healthy. In the eastern provinces rains fall in summer,

¹ The Cape of Good Hope is important, both from its geographical position and from its place in the annals of discovery. It was discovered in 1487 by Diaz, a Portuguese sailor, toward the close of a century which had been devoted to discoveries along the western side of the African continent. Diaz succeeded in doubling the cape on this voyage, and landed on the coast at some distance beyond. Ten years later, in 1497, Vasco da Gama, also a Portuguese, conducted the first fleet of ships to India by way of the Atlantic and Indian oceans.

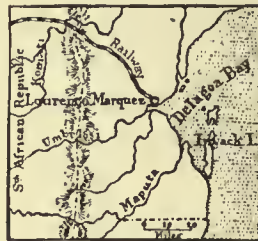
but in the western in winter. At Cape Town the rainfall amounts to 30 inches, and at Kimberley to 16 inches.

Productions. The extensive open plains of the interior are suited for pastoral pursuits. Sheep, goats, cattle, and horses supply the wool, mohair, skins, and hides, which, with diamonds, copper, and ostrich feathers, form the staple products. The colony produces excellent wheat and other cereals, with oranges and other fruits. The chief mineral products are diamonds from the famous Kimberley mines.



Cape Town and Vicinity.

Inhabitants. The Cape Colony contains about one and a half million inhabitants, a third of whom are of European origin, mainly Dutch, British, and German.



Delagoa Bay.

Industries. Diamonds form the principal, and apparently an inexhaustible, source of wealth to the colony. Since the gem was first discovered in South Africa in 1867, over \$350,000,000 worth of diamonds have been exported, chiefly from the Kimberley mines.

There are over 1,800 miles of railways open for traffic.

Government. The Cape Colony possesses a responsible government, under a governor appointed by the crown.

Towns. Cape Town is the chief place in the colony. It is the capital, and the most important place in British South Africa.

NATAL.

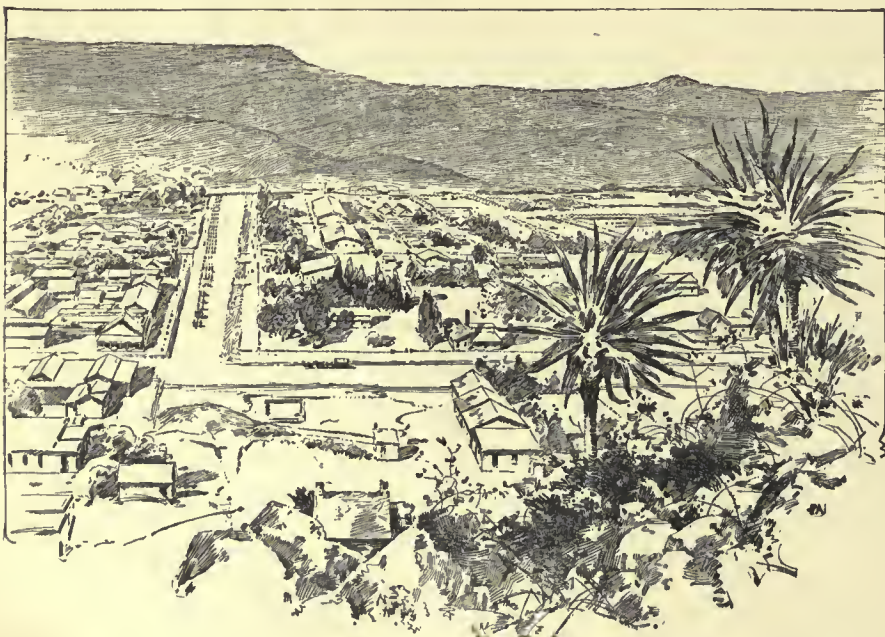
The British colony of Natal (so named because Da Gama discovered the Natal coast on Christmas Day) includes the territory lying between the Tugela River on the north and the Umfomfina on the south. Natal has an area of about 21,150 square miles. The climate is warmer than that of the Cape, and the productions are in many respects different. The sugar-cane grows wild, and the cotton plant is capable of culture. The pineapple and the fruits of southern Europe flourish.

Natal contains about 550,000 inhabitants, 40,000 of whom are Europeans.

OTHER BRITISH COLONIES AND PROTECTORATES.

ZULULAND is a British colony lying to the northeast of Natal.

TONGALAND, BASUTOLAND, and BECHUANALAND are all important countries, under the control of the British, but they are



General View of Ladysmith, Natal.

mostly inhabited by natives, who, however, are attaining some degree of civilization.

ZAMBEZIA includes the vast region under British protection in South Central Africa.

MATABELELAND and MASHONALAND are rich in gold, and the healthy and fairly fertile uplands are all being rapidly settled by Europeans. The "Pioneer Expedition" to Mashonaland in 1890 founded Salisbury (the present capital), Victoria, and other places.

THE ORANGE FREE STATE.

THE ORANGE FREE STATE is bounded on the north by the Transvaal, or South African Republic; on the west by Griqualand West; on the south by Cape Colony; and on the east by Basutoland and Natal. The area is estimated at 41,500 square miles, and the population at 207,000.

The white inhabitants (78,000 in number), nearly all of whom are of Dutch descent, are mainly engaged in sheep-farming. Wool forms the principal article of export. Diamonds, garnets, and other precious stones, and even gold, are found, and there are several coal mines.

A new railway runs from Colesberg, in Cape Colony, to Bloemfontein.

The government is republican in form, an elected president holding the executive, and the Volksraad the legislative, power.

Bloemfontein, the capital, is a small town of less than 4,000 inhabitants.

The people have excellent schools and a university, and are very prosperous.

THE SOUTH AFRICAN REPUBLIC.

THE SOUTH AFRICAN REPUBLIC,¹ also called the TRANSVAAL, comprises an extensive territory lying beyond the Vaal River; hence its name.

The area of the republic is estimated at 122,000 square miles. The population includes 120,000 whites, and 560,000 natives,—Zulu Kafirs and others.

The country is an elevated plateau of an average height of 3,000 feet, sloping west and north.

The country is largely devoted to agriculture and stock-raising. There are rich gold-fields around Johannesburg and Barberton. The Boers² of the Transvaal are almost entirely engaged in pastoral pursuits. Immense numbers of sheep and cattle are reared, and wool and hides are largely exported. The country is also well adapted for the

¹ The Transvaal, like the adjoining Orange Free State, was settled by the Boers. A republican form of government was established, and for some years the country made good progress. Since 1876 serious trouble has occurred between the British and the Boer governments. The British troops met with disaster in a battle at Majuba Hill in 1881, and in 1895 Dr. Jameson crossed the Transvaal border with some five hundred troopers on a raid; but he was surrounded by the Boers, and forced to surrender, near Krugersdorp. This raid was for the purpose of aiding the population in and around Johannesburg, who were refused full civil rights by the Boer government, and had openly rebelled. The British residents of Johannesburg still insisted on having civil rights, and the refusal by the Boer government resulted in the Transvaal war of 1899–1900, in which so many sanguinary conflicts occurred.

² Boer, Dutch, a farmer.

growth of cereals. Excellent tobacco and fine fruits are grown.

The government is vested in an elected president, and a parliament of two Volksraaden of 24 members each.

Over twenty gold-fields, covering an area of over one and a half million acres, have been proclaimed. Several hundred companies, employing many millions of capital, and supporting a mining population of at least 50,000, are actively working for gold alone.

Pretoria is the capital, but the most important town is Johannesburg. Johannesburg and Pretoria are now connected by rail with Bloemfontein and the Cape Colony.

QUESTIONS ON SOUTHERN AFRICA.

What does British South Africa include? From what did the Cape Colony derive its name? Who discovered Cape Colony? What are the principal rivers of South Africa? Describe the climate of Cape Colony. What is said about Cape Town, and about Kimberley? What are the products of Cape Colony? Describe the railroads. Describe the British colony of Natal. Why is it called Natal? Describe the climate. Tell what you can about Zululand. Where is Zambezia? Locate the Orange Free State. How many inhabitants are there? What is the principal article of export? What minerals are found in the Orange Free State? Describe the government. Describe the schools and the people. Locate the South African Republic. Describe the natural features of the country. What is meant by the word "Boer"? What are the occupations of the Boers? Describe the government. Tell what you can about the gold product of this country. What is the capital?

ISLANDS OF AFRICA.

All the islands on or off the coast of Africa belong to various European powers.

The Canary Islands, in the Atlantic, belong to Spain.

Madeira and the Cape Verde Islands belong to Portugal.

The islands of Ascension, St. Helena,¹ and Tristan da Cunha belong to Great Britain, while Zanzibar and Pemba are under British protection.

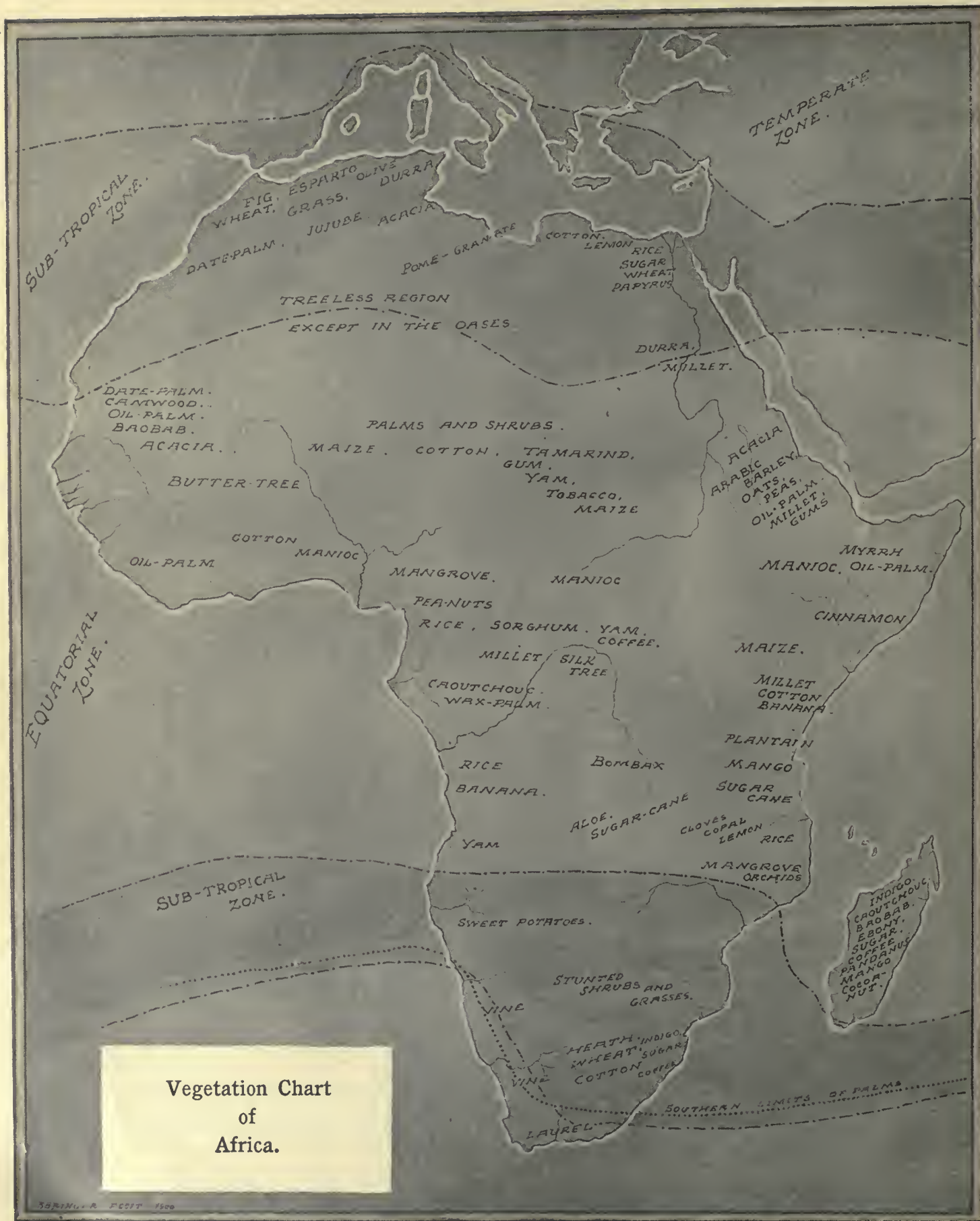
The island of Réunion, or Bourbon, is a French colony, and Madagascar and the Comoro Islands are under French protection.

Madagascar is the largest of the African islands. It is 1,000 miles in length, 350 miles at its greatest width, and has an area of 230,000 square miles. The whole island is under the sovereignty of the intelligent and powerful Hovas, as the tribes dwelling in its most central province are called. At the beginning of the century the people were all pagans, but the missionaries have converted many to Christianity, and it is now the state religion in the island. This great island is in the tropics, and is separated from the eastern coast of Africa by the broad and deep Mozambique Channel.

QUESTIONS ON THE ISLANDS OF AFRICA.

Where are the Canary Islands? To what country do they belong? Where are the Madeira Islands? To what country do they belong? Describe Madagascar. What is the religion of the people of Madagascar?

¹ The chief interest attaching to St. Helena is derived from the fact of its having been, during the last six years of his life, the place of exile of Napoleon the Great, who died at Longwood in 1821. His body was removed to Paris in 1840.



THE BUILDING OF CITIES.



Map of London and Vicinity.

The study of the building of cities is more interesting than that of the building of mountains, because it comes nearer the life of the people. Each town has its own history, just as each home has its history. The building of a city depends upon so many things, that it is impossible to account for all the causes that make a great city; but there are some facts that may be stated.

More than half of the large cities of the world are located on the sea-coast, or near the mouths of rivers, where there are good facilities for shipping. This is very true of the old cities around the Mediterranean Sea. It is also true of the seaports of the Atlantic Ocean. Cities are also built, just as post-offices and small towns are sometimes built, at cross roads,—that is, great cities are built where the roads of commerce meet and cross each other. Large cities have been built, in the United States, away from navigable rivers and seaports, on account of their sites being the center of large natural resources, and having the advantages of a number of railroads. Towns have been built, again, on account of deposits of coal and iron, of water-power, cli-



Map of the City of Berlin.

mate, and other physical features. There are ten cities in the world that have a population of over one million people.¹

London proper has a population of 4,411,271. Greater London has a population of over 6,000,000. It is one of the great centers of the world. Having started on the banks of the Thames, it absorbed a great part of the trade of Britain and the colonies. London was spoken of by Bede as "the mart of many nations, resorting to it by sea and land." That was many centuries ago. To-day it is the commercial and financial metropolis of the world.

Paris. Paris lies in a rich agricultural basin at the head of navigation on the Seine, and near the junction of several branches of this river. Havre is its harbor, and the only good harbor on the north of France, having good rail and water communication with the interior. The navigation of the Seine and its tributaries has been improved and canals dug, so that Paris has now the best system of waterways in the world. Its



Map of the City of Paris.

devotion to art has also been a factor in building up the city.

Canton, the chief commercial city of China, has a fine harbor about seventy miles from the sea, and a river connecting it with the rich interior provinces.

Tokyo has a fine harbor at the head of the bay of the same name, near the mouth of three navigable rivers. At one time the nobility of Japan were compelled to reside the half of each year in Tokyo. This also helped to build up the city.

Berlin is a great city that is not located on any navigable water, but of recent years has grown on account of its excellent railroad facilities. Before railroads were built, it was an important city for six hundred years, on account of

¹ This includes New York, Chicago, Philadelphia, London, Vienna, Berlin, Paris, St. Petersburg, Canton, and Tokyo.

its manufactures, and being located where it served as a convenient trading-point for a rich and fertile country.

Vienna is on the line of trade between India, Persia, and central Europe. It also has, in addition to its foreign commerce, a large domestic trade. It is on the Danube River.

New York has an excellent harbor, the best on the Atlantic coast. This fact, and its position on the Hudson River, were the first two natural advantages tending to make a great city; then its interior canals, and later its railroads extending in all directions, have made it a great city. It has therefore been a pathway for commerce from



Map of New York City.

European countries to the United States. It is the largest city of the western hemisphere. The greater portion of the foreign trade between Europe and America is from New York City.

Boston. Boston has a fine harbor. It receives and distributes the greater portion of the merchandise for the New England States. The material used in manufacture and the manufactured products are sent from Boston to other parts of the United States and Europe. It is the seat

of Harvard University, and its devotion to art, music, and literature has been no small factor in building up the city.

San Francisco, the great city of the Pacific Coast, is to the Pacific what New York is to the Atlantic. It has an excellent harbor, and railway and water communication with the interior of the state. It also has a large import and export trade with the Orient, and the development of the new commerce of the Pacific will tend to make it one of the great cities of the world.

Suggestions to Teachers. Have your pupils study the growth of the village, the town, or the city, and give and find out the reason why the present site was chosen, why people settled there, and the elements that tended to make it what it is.

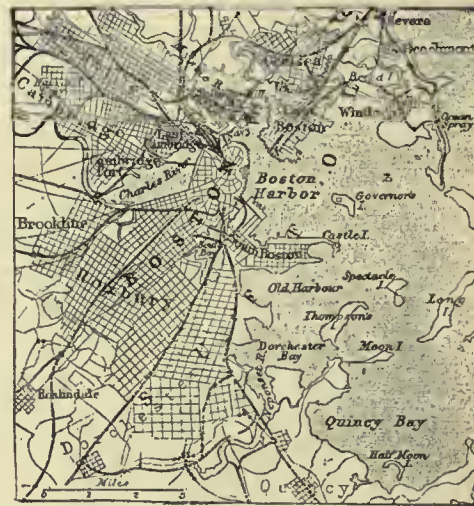
Chicago is the heart of a great agricultural region. Lake Michigan has tended from the start to make Chicago the center of a large and productive area. The Chicago River furnishes harbor facilities. The great extension of railroads terminating at Chicago from all points of the fertile West has tended to make the growth of Chicago the marvel of the world. In 1837 Chicago had a population of four thousand. In 1900 its population is estimated at over two million.

Seattle and Tacoma, favored as they are by location, have the same natural advantages that have built up the cities of the world. The reason why they are not



Map of the City of Chicago.

now the equal in population and greatness of the older cities, is because they started late; but these young giants of the West have advantages over the cities of the Old World, because the forests, the mineral wealth, and the fertile soil will build them up more rapidly. In addition to this, these young cities



Map of the City of Boston.

have the advantage of all the modern equipments of electricity and other forces of commercial and manufacturing life to assist in their further development.

Suggestions to Teachers. Have your pupils study the growth of the village, the town, or the city, and give and find out the reason why the present site was chosen, why people settled there, and the elements that tended to make it what it is.



Map of the City of New Orleans.



Map of the City of Washington.

TOPICAL AND OTHER QUESTIONS FOR A GENERAL REVIEW.

Describe the earth by telling its shape, size, circumference, diameter, movements, and position in the solar system.

Explain latitude, longitude, and the use of each.

Explain the barometer. The thermometer. (Consult dictionary as to meaning of the terms.)

What is the proportion of land and water on the earth?

What names are given to different land forms? Water forms?

Name and locate the continents.

Name ten of the best harbors of the world.

Locate four important islands.

Compare Cuba with Hawaii in all the ways you can.

Name the most important oceans.

SURFACE.

Describe the surface of each continent, giving the direction of the slope and river basins they form.

Locate several of the great plains of the world. Tell how they were formed.

Name ten rivers of North America, ten of Europe, ten of Asia, five of South America, and five of Africa.

Describe each by telling its source, direction, etc., and whether navigable or not.

Locate the lake regions of each continent.

What sections would you visit for beautiful lake scenery?

Locate five important capes of the world.

Name the mountain systems.

CLIMATE.

Describe the climate of each continent by telling the effect of the variations in latitude, elevation, air and water currents, nearness to sea, mountain barriers, and slopes.

Compare the climate of Russia with that of the Pacific Coast.

Where are the regions of greatest rainfall? Of least rainfall?

PRODUCTS.

Locate the great forest belts of the world.

What is the difference between forests near the equator and those of northern latitudes? Where are the great lumbering sections of the world?

Locate the grass and grain sections.

Compare the vegetation charts of North America, South America, Europe, Asia, and Africa.

What sections of the world export tea, rice, Indian corn?

What countries raise and export wool, cotton, tobacco?

Name the countries where manufacturing is highly developed.

Locate the principal cities noted for the manufacture of silks, watches, carpets, linens.

In what sections are the finest fur-bearing animals found?

Locate the principal sea fisheries, and tell what fish abound in each.

Locate the sections especially noted for the production of gold, silver, coal, petroleum, diamonds, marble.

CITIES.

Name and locate the ten largest cities in the world. Tell what made them large. Name five large inland cities. Name five cities noted as seaports.

Locate the cities noted for ship-building.

PEOPLE.

Name the five races. Describe and locate each. What regions are most densely settled? What regions have no inhabitants? Give reasons for differences in population.

Describe the various religions. Describe the different forms of government.

Name and locate ten great universities of the world. Name five countries that have excellent public school systems.

COMMERCE.

What is commerce?

In what three ways is trade chiefly carried on?

Describe some of the great railway, caravan, and water routes of the world.

Name five transcontinental railroads of the United States.

What three run to Puget Sound?

Make a list of the freight that a train would probably haul from Seattle, Tacoma, and Spokane to Chicago. From Chicago to Seattle.

What ocean is most used for commerce? What part of the ocean?

What countries trade with each other extensively? Name four cities that are largely engaged in international commerce. Tell the advantages of commerce when the traffic can be carried on by sea-going vessels, over that between cities where railroads must be used for transportation of freight. Describe the various modes of transportation. Give some of the advantages to commerce of the Suez Canal.

What benefit to trade is the Chicago Canal, connecting Lake Michigan with the Mississippi? Tell what changes would likely take place in the commerce of the Pacific if the Nicaragua Canal should be built across Central America, connecting in a great waterway for vessels of all kinds the Pacific and the Atlantic.

A TRIP AROUND THE WORLD.

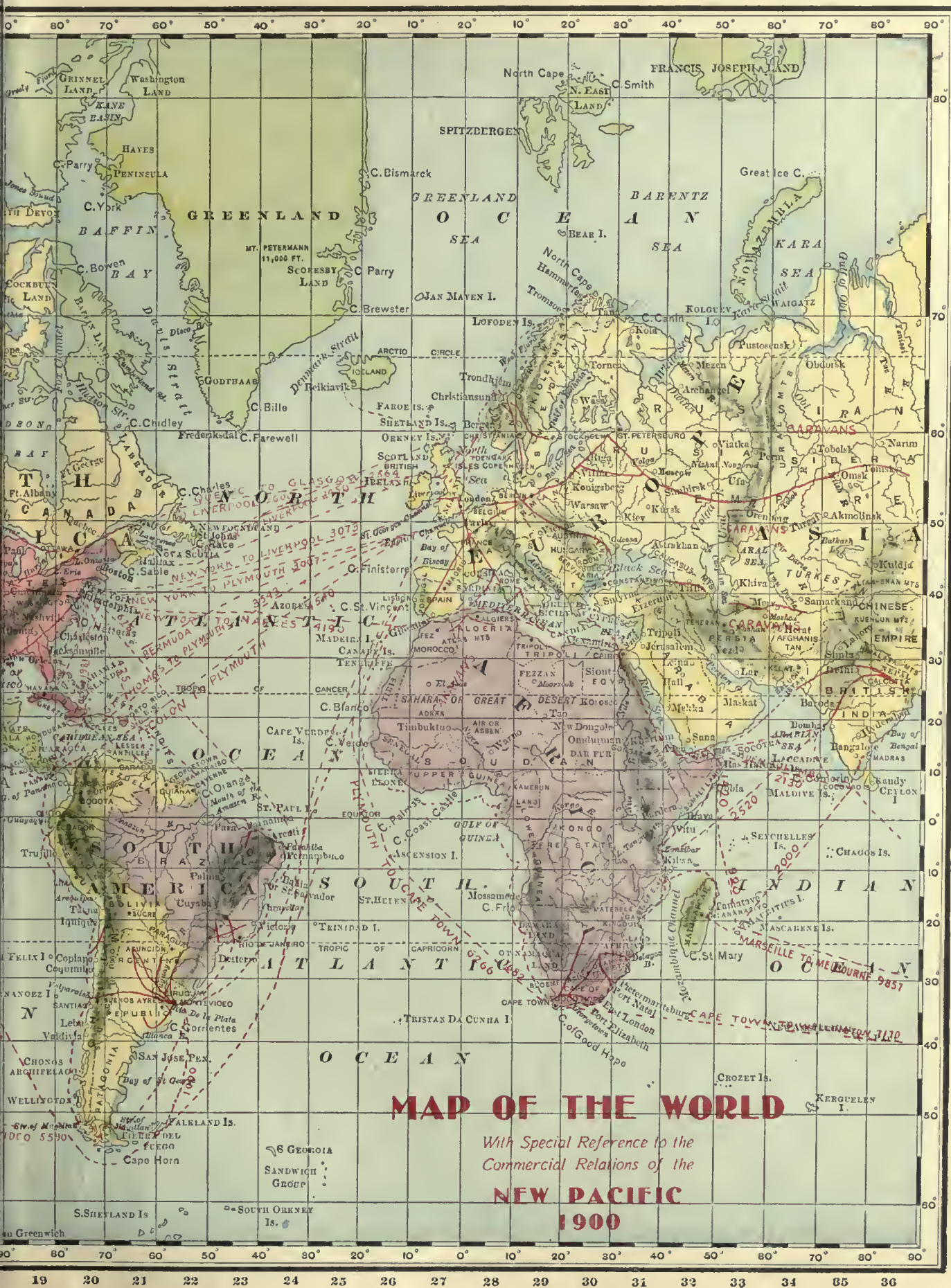
Start from Seattle. Go direct to Honolulu. Describe the kind of people you meet there; the climate; and if you stopped long enough for a meal, what native foods would you probably have on the table? Then go direct to Yokohama. How many days would it take you to reach Yokohama from Seattle? What would happen when you crossed the international date line? What kind of people would you find at Yokohama? Describe some of the customs of the people. What native foods would you have for a dinner in Yokohama? What great city is near Yokohama? Describe the country of Japan. From Yokohama go to Shanghai. About how far between the two places? Describe the people of Shanghai. Give an account of some of the customs of the people. What kind of clothes do they wear? How do they wear the hair? Tell what you can about China. Next sail from Shanghai to Hongkong. Describe Hongkong. It is near what great city? To what country does Hongkong belong? Next sail to Manila. How far is it from Hongkong? For what is Manila noted? Describe the country and the people. What great event took place at Manila in 1898? Next go to Calcutta. Describe the people, and the country, around Calcutta. Next go through the Red Sea, Suez Canal, into the Mediterranean Sea. Describe some of the interesting places you might stop at on this journey. Then sail past the Rock of Gibraltar up to Liverpool. Then take the train to London. Describe the people of London. Then take the steamer from Liverpool to New York. Describe New York and its harbor. What notable statue would you observe as you sailed into New York harbor? Then take the train on the Baltimore and Ohio Railroad to Washington. Describe Washington. Name several of its most important points of interest. Next go to Chicago. Describe Chicago. Name its most important industries. How does it rank among the great cities of the world? Then take the train to St. Paul in time to catch the North Pacific Coast Limited for Seattle. Near what wonderful park would you pass? Describe it. If you have never seen it, give an account of some of the pictures of it you have seen. Name the states you would pass through in traveling from New York to Seattle via Washington, Chicago, and the Northern Pacific. About how many miles would you travel going around the world according to the foregoing outline? About how long would it take you, if you stopped over about twenty-four hours at each place? How much would it cost?¹

SUGGESTIONS TO TEACHERS.

The map of the world on pages 130 and 131 should be used in drilling the pupils on the commercial relations of the various countries, and in fixing definitely the cities and countries in their relations to each other.

¹ The time schedule of a trip around the world, as outlined, is about four months. The first-class fare is from six hundred to one thousand dollars. This includes railroad fare, and meals on steamers.





STATISTICS AND GENERAL INFORMATION.

CONTINENTS AND PRINCIPAL COUNTRIES.

NOTE.—The figures 1897, 1890, etc., refer to the year in which the estimate was made.

	Area in Square Miles.	Population.	
North America	6,446,000	94,000,000	1897
United States (with Alaska).....	3,602,990	62,840,835	1890
Mexico.....	767,005	12,619,959	1895
Canada.....	3,653,946	4,833,239	1891
Central America.....	175,696	3,271,426	1897
South America	6,837,000	40,000,000	1897
Brazil.....	3,209,878	18,000,000	1892
Argentina.....	1,778,195	3,954,911	1895
Peru.....	449,000	3,000,000	1897
Chile.....	290,829	2,527,320	1895
Europe	3,850,000	374,000,000	1897
Russia.....	2,095,616	106,191,795	1897
German Empire.....	208,830	52,279,901	1895
Austria-Hungary.....	240,942	41,359,204	1890
France.....	204,092	38,517,975	1896
British Isles.....	120,979	38,104,975	1891
Italy.....	110,646	31,667,946	1898
Spain.....	197,670	17,565,632	1887
Turkey in Europe.....	62,744	5,711,000	1898
Asia (with islands)	17,255,890	831,000,000	1897
Chinese Empire.....	4,218,401	402,680,000	1897
India.....	1,559,603	287,123,350	1891
Japan.....	147,655	42,708,264	1896
Turkey in Asia.....	650,097	16,823,500	1898
Siberia.....	4,833,496	5,727,090	1897
Africa	11,508,793	170,000,000	1897
Kongo Free State.....	900,000	14,000,000	1898
Egypt.....	400,000	9,734,405	1897
Cape Colony.....	276,925	1,766,040	1891
South African Republic.....	119,139	1,094,156	1898
Australia	2,946,691	3,036,570	1891
New South Wales.....	310,700	1,335,800	1898
Victoria.....	87,884	1,169,434	1898
Queensland.....	668,497	484,700	1897
South Australia.....	903,690	358,224	1897

TEMPERATURE AND RAINFALL OF FOREIGN CITIES.

	Tempera- ture.*	Rainfall. Inches.†		Tempera- ture.*	Rainfall. Inches.†
Alexandria.....	69.0	10	Jerusalem.....	62.6	16
Algiers.....	64.3	27	Lisbon.....	61.4	27
Amsterdam.....	49.9	...	London.....	50.8	25
Athens.....	63.0	...	Madrid.....	52.2	9
Bagdad.....	74.0	...	Manila.....	78.4	...
Berlin.....	48.2	24	Marseilles.....	58.3	23
Berne.....	46.0	46	Melbourne.....	57.0	29
Bombay.....	81.3	75	Mexico.....	60.9	...
Brussels.....	50.0	29	Moscow.....	40.0	...
Budapest.....	51.9	17	Naples.....	60.3	30
Buenos Ayres.....	62.8	...	Paris.....	51.3	22
Canton.....	71.0	39	Pekin.....	53.0	27
Cape Town.....	62.0	23	Prague.....	50.2	14
Cherrapongee‡.....	...	610	Rome.....	60.5	31
Christiania.....	41.5	...	Smyrna.....	60.0	24
Constantinople.....	56.5	...	St. Petersburg.....	39.6	17
Dublin.....	50.1	29	Stockholm.....	42.3	20
Glasgow.....	49.8	44	Tobolsk.....	32.0	...
Hague.....	52.0	...	Valdivia.....	52.0	106
Havana.....	79.1	91	Valparaiso.....	64.0	...
Hongkong.....	73.0	101	Venice.....	55.4	...
Honolulu.....	75.0	...	Vienna.....	51.0	19
Iceland.....	39.0	30	Warsaw.....	56.2	...

*The temperature given is the mean annual temperature.

†The rainfall given is the average annual rainfall.

‡In southwestern Assam (India). It is the wettest place in the world. In 1861 the rainfall there reached 905 inches.

NOTE.—The mean annual temperature of the globe is 50° F. The average annual rainfall is 36 inches.

SIZE OF THE EARTH.

Length of the Earth's Axis at equator (miles).....	7,926
Length of the Equator (miles).....	24,902
The Earth's Surface (square miles).....	196,940,000
The Sea	141,486,000
Pacific Ocean (square miles).....	55,660,000
Atlantic Ocean (square miles).....	33,720,000
Antarctic Ocean and the great southern sea surrounding south pole (square miles).....	30,605,000
Indian Ocean (square miles).....	16,720,000
Arctic Ocean (square miles).....	4,781,000

TWENTY-FIVE LARGEST CITIES OF THE WORLD.

City.	Country.	Population.	Year.
1. London.....	England.....	4,504,766	1898
2. New York.....	United States.....	3,549,558	1899
3. Paris.....	France.....	2,536,834	1896
4. Canton.....	China.....	2,500,000	...
5. Chicago.....	United States.....	1,950,000	1899
6. Berlin.....	Germany.....	1,677,304	1895
7. Vienna.....	Austria-Hungary.....	1,364,548	1890
8. Philadelphia.....	United States.....	1,350,000	1899
9. Tokyo.....	Japan.....	1,299,941	1896
10. St. Petersburg.....	Russia.....	1,267,023	1897
11. Moscow.....	Russia.....	988,614	1897
12. Tientsin.....	China.....	950,000	1898
13. Peking.....	China.....	900,000	1898
14. Constantinople.....	Turkey.....	873,565	1885
15. Calcutta.....	India.....	861,764	1891
16. Bombay.....	India.....	821,764	1891
17. Buenos Ayres.....	Argentina.....	753,000	1898
18. Glasgow.....	Scotland.....	724,349	1898
19. Bangkok.....	Siam.....	700,000	1898
20. Warsaw.....	Poland.....	638,209	1897
21. Liverpool.....	England.....	633,645	1898
22. Hamburg.....	Germany.....	625,552	1895
23. St. Louis.....	United States.....	623,000	1899
24. Cairo.....	Egypt.....	570,062	1897
25. Brussels.....	Belgium.....	551,011	1897

TWENTY-SIX LARGEST CITIES OF THE UNITED STATES.

NOTE.—The great increase in size of New York is due to the joining of Brooklyn and other cities to it, making Greater New York.

	Estimated Population, January 1, 1900.	Population, Census 1890.
1. New York, New York.....	3,549,588	1,515,301
2. Chicago, Illinois.....	1,950,000	1,099,850
3. Philadelphia, Pennsylvania.....	1,350,000	1,046,964
4. St. Louis, Missouri.....	623,000	451,770
5. Boston, Massachusetts.....	530,000	448,477
6. Baltimore, Maryland.....	500,000	434,439
7. Cincinnati, Ohio.....	405,000	296,908
8. Cleveland, Ohio.....	400,000	261,353
9. Buffalo, New York.....	400,000	255,664
10. San Francisco, California.....	350,000	298,997
11. Detroit, Michigan.....	350,000	205,876
12. Pittsburg, Pennsylvania.....	315,000	238,617
13. New Orleans, Louisiana.....	300,000	242,039
14. Washington, District of Columbia.....	278,718 (Census 1900)	230,392
15. Milwaukee, Wisconsin.....	280,000	204,468
16. Newark, New Jersey.....	250,000	181,830
17. Louisville, Kentucky.....	225,000	161,129
18. Minneapolis, Minnesota.....	200,000	164,738
19. Jersey City, New Jersey.....	200,000	163,003
20. Kansas City, Missouri.....	200,000	132,716
21. Indianapolis, Indiana.....	200,000	105,436
22. Rochester, New York.....	177,000	133,896
23. St. Paul, Minnesota.....	175,000	133,156
24. Providence, Rhode Island.....	167,000	132,146
25. Denver, Colorado.....	165,000	106,713
26. Manila, Philippines.....	154,000

CHIEF EXPORTS OF THE LEADING COUNTRIES OF THE WORLD.

Country.	Chief Articles of Export.	Cities.	Country.	Chief Articles of Export.	Cities.
Argentina	Wool, dried ox-hides, beef, talow, wheat.	Buenos Ayres	German Empire	Wool, cotton, and silk manufactures, sugar, iron, leather-ware, coal, machinery (including locomotives), paper, woolen and cotton yarns.	Bremen, Hamburg
Australian Colonies	Wool, gold, wheat, flour, copper, copper ore.	Sydney, Melbourne, Brisbane	Greece	Cereals, cotton manufactures, engravants, building-wood, ores, wines.	Piræus
Austria-Hungary	Grain, sugar, molasses, wood, animals, leather and leather-ware, glass and glassware.	Trieste	India	Raw cotton, opium, rice, oil-seeds, wheat, jute, indigo, tea.	Bombay, Calcutta
Belgium	Grain, coal, coke, flax, linen and hemp yarn, machinery.	Antwerp	Italy	Silk, olive oil, wine, fruit.	Naples, Venice
Brazil	Coffee, sugar, rubber, tobacco, cotton.	Rio Janeiro, Bahia, Pará	Jamaica	Fruit, sugar, rum, coffee, logwood.	Kingston
British Islands	Cotton, woolen, linen, leather, silk, and jute manufactures, iron, steel, machinery, steam-engines, coal, apparel, leather, woolen and worsted yarn, hardware, cutlery, copper (wrought and unwrought), earthenware, and porcelain.	London, Liverpool, Manchester, Glasgow, Dublin	Japan	Silk, artistic products, coal, tea.	Tokyo, Yokohama
Canada	Timber, animals, barley, rye, wheat, cheese, dried fish.	Montreal, Quebec	Mexico	Silver, gold, dyewoods and cabinet woods, fibers, vanilla, coffee, tobacco.	Vera Cruz
Cape Colony	Diamonds, wool, ostrich feathers, copper ore, angora hair.	Cape Town	Netherlands	Peruvian bark, iron bars and wares, butter, refined sugar.	Amsterdam, Rotterdam
Ceylon	Coffee, cocoanut oil, cinchona bark, tea.	Colombo	New Zealand	Wool, gold, wheat, meat.	Auckland, Cristiania
Chile	Nitrate of soda, copper, guano, silver ore, wheat.	Valparaiso, Concepcion	Norway	Wood, cod (dried or split), herrings, train oil, lucifer matches.	
China	Tea, silk, and silk goods.	Canton, Hongkong	Portugal	Wine, cork.	Lisbon
Cuba	Sugar, tobacco.	Havana	Russia in Europe	Wheat, rye, oats, barley, flax, wood of all sorts, linseed, hemp, raw wool.	St. Petersburg, Odessa
Denmark	Swine, butter, horned cattle, barley.	Copenhagen	Spain	Wine, lead, iron ore, copper ore, raisins, oranges, cork.	Barcelona
Egypt	Cotton, beans, sugar.	Cairo, Alexandria	Sweden	Wood, iron, oats, butter.	Stockholm
France	Wool, silk and cotton manufactures, silk (raw and waste), wine, hides (tanned or curried), cheese, butter, wool leather-ware, haberdashery, metal wares, sugar.	Marseilles, Bordeaux, Havre	Switzerland	Articles of food, raw and manufactured silk, cottons, and watches.	Geneva, Berne
			United States	Raw cotton, wheat, wheat flour, bacon, hams, refined mineral oil, corn, lard, wood and manufactures of wood, tobacco, animals, cheese, cotton manufactures, lumber, fish, and canned goods.	New York, Boston, Philadelphia, Baltimore, New Orleans, San Francisco, Seattle, Tacoma

EXPORTS OF THE UNITED STATES FOR 1898.

In this list the countries to which most goods are sent are named first. B.I. stands for British Isles; Ger. for Germany; Can. for Canada; Neth. for Netherlands; Belg. for Belgium.

Article.	Value in Millions of Dollars.	From	To
Ag. implements	9	New York	Can., Europe, Argentina, Australasia
Beef products	31	N.Y., Boston	B.I., S.A., Ger.
Cattle	33	Boston, N.Y.	B.I.
Carriages, cars, and bicycles	10	N.Y., Balto.	B.I., Belg.
Coal and coke	12	Lake ports	Canada
Copper	34	N.Y., Boston	Neth., B.I., France
Corn	77	Balt., N.O., N.Y., Phil.	B.I., Europe
Cotton, unmd.	232	N.O., Galveston, N.Y., Savannah	B.I., Ger., France
Cotton, mfd.	20	N.Y.	China, Can., B.I.
Drugs, chemicals, dyes, and medicines	10	N.Y.	B.I., S.A., Ger., Can.
Fruits and nuts	9	N.Y., Boston, San Fran.	B.I., Ger., Neth.
Hog products	118	Boston, N.Y., Balto.	B.I., Belg., Ger.
Iron and steel and mfrs.	82	N.Y., N.O., San Fran.	B.I., Belg., Ger., Fr., Mexico
Leather and mfs.	21	Boston, N.Y.	B.I., Can., Neth., Belg.
Mineral oil	47	N.Y., Phil., Del.	B.I., Neth., Austria
Naval stores	9	Savannah, Brunswick, N.Y.	B.I., Ger., Neth., Brazil
Timber, lumber, and mfrs.	38	N.Y., Pensacola, N.O.	B.I., Ger., Argentina
Tobacco	28	N.Y., Balt., N.O., Phil.	B.I., Belg., Ger., Can.
Vegetable oil	13	Galveston, N.O., N.Y.	Ger., B.I., Neth.
Wheat (bu.)	72	N.Y., San Fran., Boston	B.I.
Wheat (bbls.)	10	Norfolk, Balto., N.Y.	B.I., Brazil, Hongkong

Exports of lumber, flour, and canned goods are sent from Puget Sound ports to Hawaii, Hongkong, Yokohama, Vladivostok, Shanghai, and other Asiatic ports.

IMPORTS OF THE UNITED STATES FOR 1898.

This table includes all articles whose value equalled ten millions of dollars, and the chief country from which the importation was made.

Coffee	54 millions.
From Brazil	33 millions.
Rest of South America	7 "
Central America	4 "
Mexico	3 "
Fruit and Nuts	15 millions.
Bananas, Central Am. and W. Indies	4 millions.
Lemons, Italy	3 "
Currants	1 "
Dates	1 "
Oranges, West Indies	1 "
Preserved Fruits	1 "
Hides and Skins	40 millions.
South America	19 millions.
British Isles	7 "
Rest of Europe	10 "
East Indies	4 "
India Rubber	26 millions.
Brazil	13 millions.
British Isles	6 "
Rest of Europe	5 "
Jewelry and Precious Stones	15 millions.
France	3 millions.
British Isles	4 "
Netherlands	3 "
Silk, Raw	27 millions.
Japan	12 millions.
Italy	7 "
Silk Goods	25 millions.
France	10 millions.
Germany	4 "
Switzerland	4 "
Tea	10 millions.
Japan	4 millions.
China	4 "
Sugar	76 millions.
West Indies	23 millions.
East Indies	16 "
Hawaii	16 "
Germany	8 "

UNITED STATES STANDARD TIME.

The earth rotates at the rate of 15° degrees in one hour. A watch set by the sun at any point will be slow at all points east and fast at all points west, in comparison with the correct time by the sun. The difference is at the rate of four minutes to a degree of distance.

In 1883 a convention of railroad managers adopted a system by which the time of certain meridians 15° or one hour apart shall be held as the standard time.

The standards for different parts of the country are: Meridian 75°, Eastern Time; 90°, Central Time; 105°, Mountain Time; 120°, Pacific Time.

Passengers are required to reset their watches at each meridian. They must set their watches back an hour if going west, and forward an hour if going east.

Places 15° apart in longitude are one hour apart in time. Hence, when it is noon at Washington it is about nine o'clock, A. M., in Seattle.

INTERNATIONAL DATE LINE.

This is an imaginary line near the 180th meridian. (See map of the world on page 130.)

The sun is all the time rising at some place on the earth, and the light of sunrise goes around the earth every twenty-four hours. So the noon hour follows the sun around the earth all the while. Our day begins with midnight. There is a perpetual midnight rolling around the world. It has been agreed that this midnight shall take a new name, Sunday, Monday, etc., as it crosses the International Date Line near the meridian of 180°.

When a man travels westward, and wishes to keep his watch with local time, he has to put it back one hour every 15°, and if he goes entirely around the world, he will be obliged to move the hands of his watch back an hour twenty-four times, and thus will lose a day in his reckoning.

In the same way, one going eastward around the world appears to gain a day. Both men correct their reckoning at the International Date Line near the 180th meridian, and thus people in the same place have the same day of the week, no matter whether they reached it from the east or from the west.

UNITED STATES WEATHER BUREAU.

The United States maintain a system of observations and records concerning the weather. There are about 150 observation stations, which telegraph the following data to Washington and other large cities twice each day:—

The pressure of the atmosphere, as shown by the barometer.

The temperature, as shown by the thermometer.

The direction and velocity of the wind.

The clearness or cloudiness of the sky.

The fall of rain or snow during the preceding twenty-four hours.

The observations are made each day at 8, A.M. and 8, P.M., by time based upon the meridian **75 degrees west of Greenwich**,—the meridian of standard eastern time.

Reports are also received from many volunteer observers at other stations.

Maps with Weather Indications for Each Day, with Synopsis and Predictions.—These weather maps are furnished free, and teachers interested should address the nearest weather bureau station for maps for use in the school.

Signal flags are used to inform the public as to the condition of the weather.

A WHITE FLAG indicates CLEAR or FAIR WEATHER.

A BLUE FLAG indicates GENERAL RAIN or SNOW.

A HALF-WHITE and HALF-BLUE FLAG indicates LOCAL RAIN or SNOW.

A BLACK TRIANGULAR FLAG refers to TEMPERATURE.

A WHITE FLAG with a BLACK SQUARE in the CENTER indicates a COLD WAVE.

The TEMPERATURE FLAG hoisted ABOVE the fair-weather or rain flag indicates WARMER WEATHER; BELOW, it indicates COLDER WEATHER. When NO TEMPERATURE FLAG is shown, PRESENT TEMPERATURE will continue. The COLD-WAVE FLAG means a SUDDEN and DECIDED FALL in temperature.

RULES FOR FORETELLING THE WEATHER.

A Rising Barometer.—A rapid rise indicates unsettled weather.

A gradual rise indicates settled weather.

A rise with dry air and cold increasing in summer indicates wind from the northward; and if rain has fallen, better weather may be expected.

A rise with moist air and a low temperature indicates wind and rain from the northward.

A rise with southerly winds indicates fine weather.

A Steady Barometer.—A steady barometer with dry air and seasonable temperature indicates a continuance of very fine weather.

A Falling Barometer.—A rapid fall indicates stormy weather.

A rapid fall with westerly wind indicates stormy weather from the northward.

A fall with a northerly wind indicates storm, with rain and hail in summer, and snow in winter.

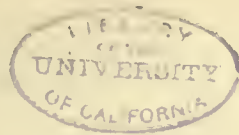
A fall with increased moisture in the air, and heat increasing, indicates wind and rain from the southward.

A fall with dry air and cold increasing in winter indicates snow.

A fall after very calm and warm weather indicates rain with squally weather.

The barometer rises for northerly winds, including from northwest by north to the eastward for dry or less wet weather, for less wind, or for more than one of these changes, except on a few occasions, when rain, hail, or snow comes from the northward with strong wind.

The barometer falls for southerly wind, including from southeast by south to the westward, for wet weather, for stronger wind, or for more than one of these changes, except on a few occasions, when moderate wind, with rain or snow, comes from the northward.



ETYMOLOGY OF GEOGRAPHICAL NAMES.

NAMES OF PLACES IN WASHINGTON.

ABERDEEN (town at the mouth), after Aberdeen, Scotland.
 ACAMAS, from the sweet root *camas* (*Camassia edulis*), used by the Indians as food.
 ACME (top), descriptive of situation.
 ADAMS COUNTY, MOUNT ADAMS, in honor of President Adams.
 ADELAIDE, after the Australian town.
 ADMIRALTY INLET, named by Vancouver in honor of the British Admiralty.
 AGATE, from the stone of that name.
 AINSLIE (hedge meadow), name of owner of a local mill.
 ALDER, ALDERTON, from the alder trees.
 ALKI POINT (Indian), by and by.
 ALLYN, named in honor of Judge Allyn.
 ALMA (Spanish), soul.
 ALMIRA (Arabic), princess.
 ALMOTA (corrupted Indian), torchlight fishery.
 ALPHA, first letter of the Greek alphabet.
 ALPOWA (Nez Percé), mouth of spring creek. So named from the many springs.
 ALTA VISTA, high view.
 ALTO, high.
 ANBOY, after the city in Hindustan.
 ANDERSON ISLAND, after a settler.
 APPLETREE, descriptive name.
 AQUARIUM, water-place.
 ARCADIA, land of arches.
 ARDEN (shut-in land), after English place.
 ARPOWA, same as Alpowa (l, r, and u are interchangeable letters).
 ARCTIC, from Arctic (Great Bear).
 ARTONDALE (English), plow-town dale.
 ASOTIN COUNTY, etc. (Indian), eel creek.
 AUBURN (English), old brook.
 AURORA, goddess of morn.
 AVON (British, waters), after English place.
 AXFORD (ford of Axe River), after a settler named Axeford.
 BAINBRIDGE ISLAND, after the United States brig Bainbridge, which was named after the commodore of that name.
 BAKER, MOUNT, from the fact that it was first seen by Lieutenant Baker, who sailed with Vancouver.
 BALCH PASSAGE and LAKE, after Captain Balch.
 BALLARD, name of a settler.
 BANGOR (Welsh, high choir), after town in Maine.
 BARBERTON, BARRY, surnames.
 BATTLEGROUND, scene of an Indian fight.
 BAY CENTER, BAY VIEW, BAY CITY, BEACH, and BEAVER, descriptive names.
 BELLEVILLE, pretty village.
 BELLEVUE, pretty view.
 BELLINGHAM BAY (pretty meadow home), named in honor of Lord Bellingham, by Vancouver.
 BELMONT, pretty mountain.
 BEMIS, BENDER, BENSTON, BERRYMAN, after settlers.
 BIRCH BAY, from the fact that Vancouver found birch trees there.
 BIRCH POST-OFFICE, after a settler.
 BIRDSVIEW, descriptive name.
 BISMARCK, in honor of Prince Bismarck.

BLACK DIAMOND (coal), BLACK RIVER, BLACK ROCK SPRING, are descriptive.
 BLACKMANS, name of a settler.
 BLAINE, in honor of James G. Blaine.
 BLAKE ISLAND, BLAKELEY ISLAND, named by Wilkes, in 1841, after shipmates.
 BLOCKHOUSE, built by Territorial Volunteers under "Blockhouse James Smith."
 BLUE MOUNTAINS, descriptive; as, also, are BLUFF SIDING and BLUFF-TON.
 BOISE CREEK (French), woods.
 BOISFORT (French), strong (or great) wood.
 BOSSBURG, the "boss" town.
 BOSTON. All Americans were called "Bostons" by the Indians.
 BOULEVARD, BOUNDARY, descriptive.
 BOWMANS (an archer), BRADLEY (broad meadow), BRENNAN (Captain Brennan), BRENT, names of settlers.
 BRIDGEPORT, BRIDGE CREEK, BROOKDALE, BROOKFIELD, descriptive names.
 BROOKLYN (brook pool), after the New York city.
 BRUSH PRAIRIE, BUCKEYE, are descriptive.
 BUCKLEY (deer meadow), name of a local business man.
 BUCODA, named by taking the first two letters of the owners' names, — Buckley, Coulter, and Davis.
 BUDDS INLET, named by Wilkes in 1841.
 BUENNA (Spanish, *buena*), good.
 BUSH PRAIRIE, after a noted negro settler.
 CADYVILLE (tub town), after a settler.
 CANDEN (crooked den), after the New Jersey city.
 CANAL DE HARO, after a Spanish navigator who explored it in 1789.
 CAÑON RAPIDS, descriptive.
 CAPE DISAPPOINTMENT, so named by Meares (July, 1778), who tried to find a river described by Heceta and marked on his map. Not finding the river, Deception Bay and Cape Disappointment were thus named in consequence. In 1792 the cape was named Cape Hancock, in honor of John Hancock, by Captain Gray, who, on hearing of the name given by Meares, restored the original name.
 CAPE FLATTERY, so named by Captain Cook in 1778.
 CAPE HORN, so named because of a fancied resemblance to the South American cape.
 CARBONADO (coal-place), from the local coal mines.
 CARRS INLET, after an explorer.
 CASCADES, CASCADE MOUNTAINS, from the Columbia falls.
 CASES INLET, after Lieutenant Case, of Wilkes's expedition.
 CATHLAMET (tribe, river, town), so named because of stony bed of river, from the Indian word meaning "stone."
 CEDAR HOUSE, CEDAR MOUNTAIN, and CEDARVILLE, so called because of the cedar trees.
 CHAUTAUQUA (Indian, a foggy place), after the New York place.
 CHEHALIS (Indian), sand. So named because of the sandy mouth of the river.
 CHICO (Spanish), little.
 CHIMACUM, name of an Indian tribe.
 CHINOOK, name of an Indian tribe and an Indian jargon.
 CHUCK (Indian), water; hence SKOOKUM CHUCK (strong water); CHUCKANUT, etc.

CINEBAR, corrupted from cinnabar.

CLALLAM (corrupted Indian), clam-man, or strong people.

CLARKE RIVER and CLARKE COUNTY, after the explorer.

CLEVELAND (cliff land), after settler; also, CLIFTON (cliff town).

CLYDE, after the British river.

COAL CREEK, descriptive.

CŒUR D'ALENE (French, heart of the awl), descriptive of the hardness of a trader's heart.

COFFIN, from the Indian burial-caves in the vicinity.

COLFAX, in honor of Vice-President Colfax.

COLLINS, name of a settler; COLLIS (Gen. C. T. Collis); COLTON, surname.

COLUMBIA RIVER, from Captain Gray's ship Columbia, in which he explored the river.

COLVILLE, after a member of the Hudson Bay Company.

COMMENCEMENT BAY, where deep-water navigation commences, was so named by Wilkes in 1841.

COSMOPOLIS, "universe city."

COULEE CITY, from the Grand Coulee, a marshy, grassy plain.

COVINGTON, cove-meadow town.

COWLITZ, name of an Indian tribe.

CRAB CREEK, from the wild crab-apple trees.

CRESCENT BAY, so named in British Admiralty chart of 1847

CRESCENT LAKE and CRESCENT SUMMIT, descriptive names.

CRIMEA, from fancied resemblance.

CUSTER, in honor of General Custer.

CYPRESS ISLAND, so named by Vancouver, from the cypress trees.

DALLES, troughs.

DANAS PASSAGE, in honor of Dana, the mineralogist of Wilkes's expedition.

DECATUR, named in honor of Commodore Decatur.

DECEPTION PASS, so named by Vancouver in 1792.

DEFIANCE POINT, so named on account of its bold appearance.

DELPHI, after the ancient Greek town.

DELTA (the fourth letter of the Greek alphabet), descriptive.

DENNY, surname of a Seattle pioneer.

DERBY, an English geographical name meaning deer home.

DES CHUTES (French), the falls.

DES MOINES (French), the mounds; named after the capital of Iowa.

DESTRUCTION ISLAND, so named, in 1787, by Captain Berkeley.

DEVILS HEAD, fanciful name.

DEWATTO, elves.

DIVIDE, descriptive name.

DIXIE, so named by a Southerner.

DOCEWALLAP (Indian), two mouths.

DOE BAY, from the deer.

DOUGLAS COUNTY, named in honor of Stephen A. Douglas.

DOWNING (hilly slope), surname of a settler.

DRAYTONS PASSAGE, named by Wilkes, in 1841, in compliment of his draftsman.

DRYAD, an oak-nymph.

DUBUQUE, named after the Iowa city, which was named in honor of Julian Dubuque.

DUDLEY (clothes meadow), surname.

DUNGENESS (danger nose), named by Vancouver after the English cape of that name.

DUWAMISH HEAD, after an Indian tribe. "Mish" is an Indian word meaning people.

EAGLE CLIFF, EAGLE GORGE, EAGLE ISLAND, EAGLETON, names suggestive of the eagle.

EDGECOMBE, edge of hollow.

EDISON, named in honor of Thomas A. Edison.

ELDORADO (Spanish), land of gold.

ELLENSBURG, named in honor of the founder's wife.

ELLIOTT BAY, named by Wilkes, in 1841, in honor of Commodore Elliott.

ENUMCLAW (Indian), little mountain.

ESPANOLA, Spanish.

ETNA (Latin), mountain of fire.

EUREKA (Greek), "I have found it."

EXCELSIOR (Latin), still higher.

FAIRHAVEN, FAIRHOLME (meadow home), and FAIRVIEW, descriptive names.

FIDALGO ISLAND, named in honor of an explorer, by Elisa, in 1791.

FORT CANBY, named in honor of General Canby.

FOULWEATHER BLUFF, so named by Vancouver.

FOX ISLAND, named after a settler.

FRANKFORT, French fort. A *franca* was a javelin used by the French.

FRANKLIN COUNTY, named in honor of Benjamin Franklin.

FREMONT (French, free mountain), named in honor of General John C. Frémont.

FRESHWATER BAY, so named in 1847.

FRIDAY HARBOR, so named from being discovered on Good Friday.

GALENA, lead.

GARFIELD, named in honor of President Garfield.

GEORGIA GULF and STRAIT OF GEORGIA, named in honor of George IV.

GIBRALTAR, so named from fancied resemblance to the European rock.

GIG HARBOR, so named by Wilkes, in 1841, because of its capacity, suited to a gig.

GRANGE CITY, in compliment of the grangers.

GRAYS HARBOR, discovered by Captain Gray in 1792, and named the same year by Whidby, who surveyed it.

GRAYS RIVER and GRAYS POINT, so named by Vancouver, in honor of Captain Grey of the British navy.

HALE PASSAGE, named in compliment of the philologist of Wilkes's expedition.

HARSTINE ISLAND, named in compliment of Lieutenant Harstine.

HARTFORD, ford of the deer.

HOODS CANAL, named in honor of Admiral Hood, by Vancouver.

HOQUIAM (Indian), wood-destroyer. So named from the fact that dead cedars choke the stream.

HUMPTULIPS (Indian), "hard to pole" up stream.

JEFFERSON COUNTY, named in honor of President Jefferson.

JUAN DE FUCA, name of a reputed Greek navigator sailing under the Spanish flag.

JUANITA (Spanish), little Jane.

JUNIATA, after the river of that name in Pennsylvania.

JUNO, a Roman goddess, wife of Jupiter.

KALAMA (Indian), a word of the same derivation as "calumet" and "cathlamet," meaning stone.

KAPOUSIN LAKE (Indian), meadow.

KENNEWICK, king's place or village.

KIRKLAND, church land.

KITSAP COUNTY, named after the Indian who killed Colonel Slaughter.

KUNTUX (Chinook Indian), understand.

LA CAMAS, the quamash root, "sweet and pleasant to the taste."

LA CONNER, from the name of Louisa Agnes Conner; hence L. A. Conner, or La Conner.

LA CROSSE (French), the cross.

LAPUSH, the mouth.

LAPWAI (Indian), two countries of the Nez Percés.

LARCHMONT, hill or place of the larch trees.

LEON (Spanish), lion.

LEWIS COUNTY and LEWIS RIVER, in honor of Lewis, the explorer.

LINCOLN COUNTY, in honor of President Lincoln.

LOGAN, in honor of General John A. Logan.

LOPES ISLAND, named, in 1847, in honor of a resident named Lopez.

LOWELL (little hill), named in honor of James Russell Lowell.

LUMMI ISLAND, name of Indian tribe.

LUNA (Latin), the moon.

MADRONE, a kind of laurel tree.

MAKAH, or CLASSETS (Indian), cape people.

MARENGO, commemorative of the Italian battle-field.

MARROWSTONE POINT, so named by Vancouver.

MAURY ISLAND, named in honor of Lieutenant Maury.

MEEKER, in compliment of the "hop king" named Meeker.

MELBOURNE, named after the Australian city, which was named in honor of the English statesmen, Lord Melbourne.

MONTECRISTO (Spanish), mountain of Christ.

MONTICELLO (Italian), hill or terrace; name of President Jefferson's residence in Virginia.

MOUNT ADAMS, named in honor of President Adams.

MOUNT BONAPARTE, named in honor of Napoleon.

MOUNT HOOD, named in honor of Admiral Lord Hood.

MOUNT MILES, named in honor of General Miles.

MOUNT OLYMPUS, named after the Greek mountain of that name.

MOUNT RAINIER, named in honor of Vancouver's friend, Rear-Admiral Rainier.

MOUNT TACOMA (Indian), white mountain; from its snow-clad summit.

MOUNT VERNON, name of Washington's home in Virginia.

MOWICH (Chinook Indian), deer.

MULTNOMAH, surname of an Indian chief.

NARROWS, THE, so named because the sound narrows at that point.

NEAH BAY, commemorative of an Indian tribe.

NEZ PERCÉ (French), pierced nose; an Indian tribe.

NISQUALLY (Indian), belonging to the prairie or grass; an Indian tribe.

NOOKSACK (Indian), north of the mountains; an Indian tribe.

OCOSTA, perhaps from Spanish *costa*, coast.

OKANOGAN LAKE (Indian), soft and deep.

OLALA (Indian), berries.

OLEQUA, an Indian name.

OLYMPIA, OLYMPIAN MOUNTAINS, from the Greek mountains.

OROVILLE, gold town.

OSCEOLA, name of an Indian chief.

PALOUSE (Indian), our home.

PAMPAS (Spanish), grassy plains.

PARTRIDGE POINT, so named by Vancouver.

PATAHA (Indian), brush creek.

PATETA (Indian), dry bark creek.

PEND D'OREILLE (French), lobe of the ear; from the shape.

PENNS COVE, named in honor of a friend of Vancouver's.

PIEDMONT, at the foot of the mountain.

PIERCE COUNTY, named in honor of President Pierce.

PILCHUCK (Indian), red water.

POINT GRENVILLE, named by Vancouver in 1792.

POINT No POINT, named by Wilkes in 1841.

POINT WILSON, named in honor of Captain Wilson of the English navy.

POMONA, goddess of fruit.

PONTIAC, name of a noted Indian chief.

PORT ANGELES, angel's port; so named by Spaniards about 1790.

PORT DISCOVERY, after one of Vancouver's ships.

PORT GAMBLE, named by Wilkes.

PORT GARDINER, named by Vancouver, after Vice-Admiral Gardiner.

PORT MADISON, named in honor of President Madison.

PORT SUSAN, so named by Vancouver.

PORT TOWNSEND, named by Vancouver, in honor of Lord Townsend.

POSSESSION SOUND, so named by Vancouver, who took possession of it.

PROTECTION ISLAND, so named by Vancouver, because it protects Port Discovery.

PUGET SOUND, named by Vancouver, in honor of Lieutenant Puget.

PULLMAN, name of a noted railroad-car builder.

PUYALLUP (Indian), shadow or gloom.

QUARTERMASTER HARBOR, named by Wilkes in 1841.

QUIMPER PENINSULA, after Lieutenant Quimper, who was there in 1799.

QUINAULT LAKE, QUINAULT RIVER, from the name of an Indian tribe.

RIPARIA, on the river bank.

RITZVILLE, after Philip Ritz.

SADDLE MOUNTAIN, so named from its shape.

SALAL and SALLAL PRAIRIE, from the salal plant.

SEATCO, the name of a very troublesome Indian devil.

SEATTLE, name of a friendly Indian chief.

SEQUIN or SEGUIN, corrupted form of the Indian name.

SHAWNEE, name of an eastern Indian tribe.

SHOALWATER BAY, so named by Meares, in 1788, from its being half bare at low tide.

SIWASH (Chinook), Indian man.

SKAGIT RIVER and SKAGIT COUNTY (Indian), wild cat.

SKOKOMISH or SKYKOMISH (Indian), fresh-water or river people.

"Mish" means people; thus in Snohomish, Skywamish, Stillaquamish, Samish, Duwamish, etc.

SKOOKUM BAY (Indian), strong; so named because of the strong tides.

SKOOKUM CHUCK (Indian), strong water.

SNAKE RIVER, after the Indians, or from its crookedness.

SNOQUALMIE, name of an Indian chief.

STEAMBOAT ROCK, so named from its shape.

STEILACOOM, name of an Indian chief.

STEPLOE, named in honor of Colonel Steploe.

STEVENS COUNTY, named in honor of General Stevens.

STILLAGUAMISH (Indian), quiet-water people.

TACOMA, first used in print by Theodore Winthrop, who called the snow peaks Tacomas, after the Indian word meaning "white mountain." There were several Indian forms of the word.

TATOOSH ISLAND, so named by Meares, after an Indian visiting his ship. Tatoosh means breast-milk, the Indian's mother having suckled him longer than usual.

TILlicum (Chinook), friend.

TRINIDAD (Spanish), the Trinity.

TUMWATER (Chinook), falling water.

TULALIP (Indian), wide bay with a small mouth.

TUXEDO, duck's cedar.

TWANA, a portage. The Indians lived at the head of Hood's Canal.

TYEE (Indian), chief or god.

UPSALADY (Indian), berries.

VANCOUVER ISLAND, so named by the Spanish commander Quadra, who met Vancouver there in 1792.

VASHON ISLAND, named in honor of Captain Vashon of the navy.

VEGA (Spanish), meadow.

WAHIAKUM COUNTY (Indian), large, tall trees.

WALLAWALLA (Indian), water after water running rapidly.

WALLOWA (Indian), rapid boulder creek.

WALLULA (Indian), water running.

WAPATO (Indian), an edible lako bulb; also, the potato.

WASCO (Cayuse Indian), rye grass.

WASHINGTON STATE, so named by Congressman Stantou of Kentucky, February, 1853.

WENATCHEE (Indian), swift-running water.

WHATCOM (Indian), noisy water; so named because of the falls.

WHIDBY ISLAND, so named by Vancouver, in honor of Whidby, who sailed around it.

WHITMAN, named in honor of Dr. Marcus Whitman.

WISHKAH (Indian), stinking water.

WOOLLEY, named in honor of its founder.

YAKIMA (Indian), white pebbles.

MISCELLANEOUS GEOGRAPHICAL NAMES.

ABAD = town. Hyderabad, town of Hyder Ali.

ABER = mouth of a river. Aberdeen, mouth of the Dee.

AL = the. Alhambra, the red. Aleantara, the bridge.

ALLAH = God. Allahabad, the town of God.

ALP = a rock or cliff. The Alps.

ARD = high. Ardennes, the heights.

BERG = mountain. Habsberg, mountain of hawks.

BURG = castle. Augsburg, castle of Augustus.

BURGH, BURY = city. Edinburgh, Edwin's city.

CASTER, CHESTER = fortress, camp, city. Colchester, camp on the Colni.

CLEFF, KLIPPE = cliff. Clifton, the town on the cliff.

CÔTE, COSTA = coast. Costa Rica, rich coast.

FELD, VELD = field or plain. Rhinfeld, the plain on the Rhine.

FORD, FURT = a ford. Stamford, stony ford.

HAM, HEIM = a home, dwelling. Mannheim, the dwelling of men.

HOLM = a small island. Stockholm, the island city built upon stakes.

INVER = mouth of river. Inverness, mouth of the Ness.

LAC, LAGO, LAGUNA = lake. Interlaken, between the lakes.

LOCH, LOUGH = lake. Lough Neagh, Lake Neagh.

MONT, MONTE = mountain. Mont Blanc, white mountain

NEGRO = black. Rio Negro, black river.

NIZHNI = lower. Nizhni Novgorod, lower new town.

PE = northern. Pekin, northern capital.

PEN = mountain. Apennines, the mountains.

POLIS = city. Indianapolis, the city of Indiana.

RIO = river. Rio Grande, great river.

SAN, SANTA = saint. San Antonio, St. Anthony.

SEE, ZEE = lake or sea. Zuiderzee, the southern sea.

STADT, STATT = town. Darmstadt, town on the river Darm.

STAN = district. Hindustan, district of the river Indus.

TA = great. Ta Kiang, great river.

TEPETL = mountain. Popocatepetl, the smoky mountain.

TIERRA = land. Tierra del Fuego, land of fire.

TON, TUN = an inclosure, town. Houston, the town of Hugh

WALD = forest. Schwarzwald, black forest.

WICH, WICK = village. Norwich, the northern village.

YAMA = mountain. Fujiyama, great mountain.

ETYMOLOGY OF A FEW OF THE COMMON WORDS USED IN THE STUDY OF GEOGRAPHY.

AX'IS. Lat. *axis*, an axletree.

BAR'BAROUS. Gr. *barbaros*, foreign.

BAY. Fr. *baie*, from Lat. *baia*, an inlet.

CAN'ZER. Lat. *cancer*, a crab (the name of one of the signs of the zodiac).

CAPE. Fr. *cap*, from Lat. *caput*, head.

CAP'ITAL. Lat. *capitalis*, from *caput*, head.

CAP'RICORN. Lat. *caper*, goat, and *cornu*, horn (the name of one of the signs of the zodiac).

CAR'DINAL, adj. Lat. *cardinalis*, from *cardo*, *cardinis*, a hinge

CHAN'NEL. Lat. *canalis*, from *canna*, a reed or pipe.

CIR'CLE. Lat. *circus*, from Gr. *kirkos*, a ring.

CIRCUM'FERENCE. Lat. *circum*, around, and *ferre*, to bear.

CIT'Y. Fr. *citê*, from Lat. *civitas*, a state or community.

CIV'ILIZED. Lat. *civilis*, pertaining to an organized community.

CLI'MATE. Gr. *klima*, *klimatos*, slope; the supposed slope of the earth from the equator to the poles.

COAST. Old Fr. *coste* (New Fr. *côte*), from Latin *costa*, rib, side.

CON'FLUENCE. Lat. *con*, together, and *fluere*, to flow.

CON'TINENT. Lat. *con*, together, and *tenere*, to hold.

CON'TOUR. Lat. *con*, together, and *tornus*, a lathe.

COUN'TY. Fr. *comté*, from Lat. *comitatus*, governed by a count.

DEGREE'. Lat. *de*, and *gradus*, a step.

DIAM'ETER. Gr. *dia*, through, and *metron*, measure.

EQUA'TOR. Lat. *æquus*, equal.

ES'TUARY. Lat. *æstuaræ*, to boil up, or be furious; the reference being to the commotion made by the meeting of a river current and the tide.

FRIG'ID. Lat. *rigidus*, from *frigere*, to be cold.

GEOG'RAPHY. Gr. *ge*, the earth, and *graphê*, a description.

GLOBE. Lat. *globus*, a round body.

GULF. Fr. *golfe*, from Gr. *kolpos*, bosom, bay.

HAR'BOR. Anglo-Saxon, *hereberga*, from *beorgan*, to shelter.

HEM'ISPHERE. Gr. *hemi*, half, and *sphaira*, sphere.

HORI'ZON. Gr. *horizein*, to bound.

IN'DIAN (ocean). India.

ISTH'MUS. Gr. *isthmos*, a neck.

LAKE. Lat. *lacus*, a lake.

LAT'ITUDE. Lat. *latitudo*, from *latus*, broad.

LONGITUDE. Lat. *longitudo*, from *longus*, long.

MERID'IAN. Lat. *meridies* (= *medius*, middle, and *dies*, day), noon.

METROP'OLIS. Gr. *meter*, mother, and *polis*, city.

MON'ARCHY. Gr. *monarchês*, from *monos*, alone, and *archein*, to rule.

MOUN'TAIN. Fr. *montagne*, from Lat. *mons*, *montis*, a mountain.

OB'LETE. Lat. *oblatus* (*ob* and past part. of *terre*, to bring), brought forward.

O'CEAN. Gr. *okeanos*, from *okus*, rapid, and *nacin*, to flow.

PACIF'IC. Lat. *pacificus*, from *pax*, *pacis*, peace, and *facere*, to make.

PAR'ALLEL. Gr. *para*, beside, and *allelou*, of one another.

PENIN'SULA. Lat. *penes*, almost, and *insula*, an island.

PHYS'ICAL. Gr. *physis* (*phusis*), nature.

PLAIN. Lat. *planus*, flat.

PLANE. Lat. *planus*, flat.

POLE. Gr. *polos*, a pivot.

POLIT'ICAL. Gr. *polis*, a city or state.

PROM'ONTORY. Lat. *pro*, before, and *mons*, *montis*, a mountain.

RELIEF'. Fr. *relever*, from Lat. *relevare*, to raise.

REPUB'LIC. Lat. *res*, an affair, and *publica*, public, —that is, a commonwealth.

RIV'ER. Fr. *rivière*, from Lat. *ripa*, a shore or bank.

SAV'AGE. Fr. *sauvage*, from Lat. *silva*, a wood.

SOCI'ETY. Lat. *societas*, from *socius*, a companion.

PRONUNCIATION OF GEOGRAPHICAL NAMES.

Key: fat, fāte, fär, fäll, fäst, färe; met, mēte, hēr; pin, pine; not, nōte, möve, nōr; tuh, mūte, pūll; çivil; leisure; thin, then.

Aberdeen	ab-ēr-dēn'	Bordeaux	bor-dō'	Edinburgh	ed' n-bur-ō	Inverness	in-vēr-nes'
Abyssinia	ab-i-sin' i-ä	Borneo	bōr' nē-ō	El Paso	el pä' sō	Iowa	ī'ō-wä
Acapulco	ä-kä-pöl' kō	Bosnia	boz' ni-ä	England	ing' land	Irkutsk	ir-kōtsk'
Aconcagua	ä-kon-kä' gwä	Bosphorus	bos' phō-rus	Etna	et' nä	Irtish	ir' tish
Adirondack	ad-i-ron' dak	Brazil	bra-zil'	Euphrates	ū-frä' tēz	Ischia	ēs' kē-ä
Adrianople	ad' ri-an-ō' pl	Brazos	brä' zos	Europe	ū'rōp	Ishpeming	ish' pem-ing
Adriatic	ä-dri-at' ik	Bremen	brem'en			Itasca	i-tas' kä
Ægean	ē-jē' an	Breslau	bres' lou	Falkland	fāk' land		
Afghanistan	af-gan-is-tän'	Brighton	brī' ton	Fiji	fē' jē	Jamaica	ja-mä' kä
Africa	af' ri-kä	Budapest	bö' dä-pest	Fond du Lac	fon dü lak'	Johannesburg	yō-hän' nes-börg
Alabama	al-a-bä' mä	Buenos Ayres	bwä' nōs i' rez	Formosa	fōr-mō' sä	Joliet	jō' li-et
Alaska	a-las' kä	Bukharest	bō-ka-rest'	Franz Josef	fränts yō' zef	Juan de Fuca	hö-än' dä fö' kä
Albemarle	äl-be-märl'	Bulgaria	bul-gä' ri-ä	Land	länt	Juan Fernandez	hö-än' fer-nän'-deth
Albert Nyanza	al' bērt ni-an' zä			Fuchau	fō-chou'		
Albuquerque	äl-bō-kēr' ki	Cadiz	kä' diz	Fuji-san	fō' jē-sän'	Juneau	jō-nō'
Aleutian	al-e-ō' shi-an	Cairo	kä' rō (U.S.)	Funchal	fön-shäl'	Jungfrau	yöng' frou
Algeria	al-jē' ri-ä	Cairo	kī' rō (Egypt)	Fusan	fō-sän'		
Algiers	al-jez'	Calais	kal' is (U.S.)			Kabul	kä-böl'
Allegheny	al' ē-gä-ni	Calais	kä-lä' (France)	Galilee	gal' i-lē	Kalamazoo	kal' a-ma-zō'
Andaman	an' da-man	Calcutta	kal-kut' ä	Galveston	gal' ves-ton	Kamchatka	käm-chät' kä
Andes	an' dēz	California	kal-i-fōr' ni-ä	Ganges	gan' jez	Kanawha	ka-nä' wä
Androscoggin	an-dros-kog' in	Cambodia	kam-bō' di-ä	Garonne	gä-ron'	Kandahar	kän-dä-här'
Annam	a-nam'	Campeche	käm-pä' chä	Genesee	jen-e-sē'	Kansas	kan' zas
Annapolis	a-nap' ō-lis	Candia	kan' di-ä	Georgia	jōr' jiä	Karnak	kär' nak
Antarctic	an-tärk' tik	Caracas	kä rä' käs	Ghent	gent	Katahdin	ka-tä' din
Antilles	än-til' lēz	Caribbean	kar-i-bē' an	Gibraltar	ji-bräl' tär	Keokuk	kē' ō-kuk
Antwerp	ant' wērp	Carpathian	kär-pä' thi-an	Gizel	gē' ze	Khiva	kē' vä
Apennines	ap' e-ninz	Castlemaine	käs' l-män	Gloucester	glos' ter	Kilauea	kē-lou-ä' ä
Appalachian	ap-a-lach' i-an	Caucasus	kä' ka-sus	Gobi	gō' bē	Kilimanjaro	kil-ē-män-jä'rō
Ararat	ar' a-rat	Cawnpur	kän-pör'	Gondar	gon' dār	Klungchau	kē-ōng' chon'
Archangel	ärk-än' jel	Cayenne	kä-yen'	Gracias a Dios	grä' thi-äs ä dē-ōs'	Klamath	klä' math
Archipelago	är-ki-pel' a-gō	Cayuga	kä-yō' gä			Kobé	kō' bā
Argentina	är-jen-tē'nä	Ceylon	sē-lon'	Grafton	graf' ton	Kongo	kon' gō
Arizona	ar-i-zō' nä	Chamonix	shä-mō-nē'	Grampian	gram' pi-an	Königsberg	kē-nigs-berg
Arkansas	är' kan-sä	ChAMPLAIN	sham-plän'	Granada	gra-nä' dä	Kosciusko	kos-i-us' kō
Ascension	äs-then-sē-on'	Chattanooga	chat-a-nō' gä	Gratz	gräts	Krakatoa	krä-kä-tō' ä
Asia	ä' shiä	Chautauqua	sha-tä' kwä	Great Namaqua	grät nä-mä' kwä-land	Kronstadt	krön' stät
Assuan	äs-swän'	Chelan	chē-lan'	land	land	Kyoto	kē-ō' tō
Astrakhan	äs-trä-kän'	Chemnitz	kem' nits	Grindelwald	grin' del-väld		
Asuncion	ä-sön-sē-on'	Chesapeake	ches' a-pēk	Guadalajara	gwä-dä-lä-hä' rä	Labrador	lab-ra-dōr'
Australia	äs-trä' liä	Cheyenne	shi-en'	Guadalquivir	gä-dal-kwiv' ēr	La Crosse	lä-krōs
Austria-Hungary	äs'tri-ä hun'gä-ri	Chicago	shi-kä' gō	Guadalupe	gä-dä-lōp' (U.S.)	Ladoga	lä'dō-gä
Azores	a-zōrz'	Chihuahua	chē-wä' wä			Ladronc	lä-drōn'
Azov	ä' zof	Chile	chil'e	Guadiana	gwä-dē-ä' nä	La Guayra	lä gwä' rä
		Cochin China	kō' chin chī' nä	Guardafui	gwär-dä-fwē'	Lahore	lä-hör'
Babel Mandeb	bäb-el-män' deb	Cologne	kō-lōn'	Guatemala	gä-tē-mä' lä	La Paz	lä päth'
Bahamas	ba-hä' mäz	Colombia	kō-lom' bē-ä	Guernsey	gēr'n' zi	La Plata	lä plä'tä
Balearic	bal-ē-ar' ik	Colorado	kol-ō-rä' dō	Guiana	gē'n' ä' nä	Laramie	lar' a-mē
Balkan	bäl-kän'	Connecticut	ko-net' i-kut	Guinea	gin'i	Lassa	lä' sä
Baltic	-bäl' tik	Constantinople	kon-stan-ti-nō' pl			Las Vegas	läs vä' gäs
Baluchistan	bal-ō-chis-tän'	Copenhagen	kō-pen-hä' gen	Haiti	hä' ti	Le Havre	le ä' vr
Bangkok	bang-kok'	Cordova	kor' dō-vä	Halle	häll' le	Leicester	les' tēr
Bangor	ban' gōr	Costa Rica	kos' tä rē' kä	Hamburg	ham' bērg	Leipzig	līp' sik
Barcelona	bär-se-lō' nä	Cotopaxi	kō-tō-paks' i	Hammerfest	häm' mēr-fest	Leon	lā-ōn'
Baroda	bä-rō' dä	Crinea	krī-mē' ä	Hankow	hän-kou'	Liberia	li-bē' ri-ä
Basque	bäsk			Hardanger	här' däng-e'	Libyan	lib' ian
Batavia	ba-tä' vi-ä	Dakota	dä-kō' tä	Fjord	fyörd	Liechtenstein	lēc'h ten-stin
Baton Rouge	bat' on rözh	Damascus	dä-mas' kus	Havana	ä-vä' nä	Lima	lī' nä (U.S.)
Beatrice	bē' a-tris	Danube	dan' üb	Havre	ä-vr	Lima	lēmä (Peru)
Bechuanaland	bech-ō-ä'nä-land	Dardanelles	där-da-nelz'	Hawaii	hä-wi' ē	Limerick	lim' e-rik
Belfast	bel' fäst	Darien	dä' ri-en	Hebrides	heb' ri-dez	Lipari	lē' pä-rē
Belgium	bel' ji-um	Delagoa	del-a-gō' ä	Heidelberg	hē' del-berg	Lisbon	liz' bon
Belgrade	bel-gräd'	Delaware	del' a-wär	Henlopen	hen-lō' pen	Liverpool	liv' er-pöl
Belize	be-lēz'	Des Moines	de moin'	Himalaya	him-ä' lä-yä or him-ä-lä' yä	Llanos	lyä' nōs
Benares	be-nä' rez	Detroit	de-troit'			Loch Katrine	lōk kat' rin
Berlin	bēr-lin'	Diego	dē-ä' gō	Hindustan	hin-dō-stän'	Loch Lomond	lōk lō' mond
Bermuda	bēr-mū' dä	Dijon	dē-zhōng'	Hindu Kush	hin'dō kösh	Loire	lwär
Bethlehem	beth' lē-em	Dniiper	nē' per	Honduras	hon-dō' ras	Londonderry	lun'don-der-i
Birmingham	bēr' ming-am	Dniester	nēs-ter	Honolulu	hō-nō-lō' lö	Los Angeles	los an' je-les
Bloemfontein	blōm' fon-tē	Dubuque	dō-būk'	Housatonic	hō-sa-ton' ik	Louisiana	lō-ē-zī-an' ä
Bogotá	bō-gō-tä'	Duluth	dū-lōth'			Louisville	lō' is-vil
Boisé City	boi' zä	Durango	dō-rän' go	Idaho	ī' da-ho	Lourenço Marques	lō-ran' sō mār'-kes
Bolivia	bō-liv' i-ä			Illinois	il-i-noi'	Lübeck	lū' bek
Bologna	bō-lōn' yä	Eau Claire	ō klär'	Indiana	in-di-an' ä	Lucerne	lū-sēr'n'
		Ecuador	ek' wa-dor				

Lueknow	luk' now	Niagara	nī-ag' a-rā	Rio Negro	rē' ō nā' grō	Tangier	tān-jēr'
Luzon	lō-zōn'	Nicaragua	nīk-a-rā' gwā	Rio Pampas	rē' ō pan' pāz	Taos	tā' ōs
Lyon	lē-ōn'	Nice	nēs	Riviera	rē-vē-ā' rā	Teheran	teh-e-rān'
Macao	mā-kā' ō	Nieobar	nīk-ō-bār'	Rochelle	rō shel'	Tennessee	ten-e-sē'
Mackinac	māk' i-nā	Niemen	nē' men	Rouen	rō-ong'	Terre Haute	ter'-e hōt
Madagascar	mad-a-gas' kār	Niger	nī' jer	Rumania	rō-mā' ni-ā	Texarkana	teks-ār-kan' ā
Madeira	mā-dē' rā	Nippon	nīp-on'	Rumelia	rō-mē' li-ā	Thames	thāmz (U.S.)
Madras	ma-dras'	Nova Scotia	nō' vā skō' shiā	Russia	rush' ā	Thames	temz (Eng.)
Madrid	ma-drid'	Nova Zembla	nō-vā zem' blā	Sabine	sa-bēn'	Thebes	thēbz
Madura	mā-dō' rā	Nubia	nū' bi-ā	Sahara	sa-hā' rā	Theiss	tis
Magdalena	māg-dī-lā' nā	Nyassa	ny-ās' sā	Saigon	sī-gōn'	Tibet	tīb' et
Magdeburg	māg' de-bōrg	Oahu	ō-ā' hō	St. Augustine	sānt ā' gus-tēn	Ticonderoga	tī-kon-de-rō' gā
Magellan	ma-jel' an	Odessa	ō-des' ā	St. Clair	sānt klār	Tientsin	tē-en' tsēn'
Maggiore	māg-jō' re	Ogdensburg	og' denz-bērg	St. Croix	sānt kroi	Timbuktu	tīm-buk' tū
Majorca	ma-jōr' kā	Okhotsk	o-kotsk'	St. Etienne	sānt ā' tē-enn'	Tippecanoe	tip' e-ka-nō'
Makassar	mā-kās' sār	Oklahoma	ok-la-hō' mā	St. Gotthard	sānt goth' ārd	Tobolsk	tō-bōlsk'
Malaga	mal' a-gā	Okmulgee	ok-mul' gē	St. Louis	sānt lō' is	Tokyo	tō' kē-ō
Malakka	ma-lak' ā	Olympia	ō-līm' pi-ā	St. Petersburg	sānt pē'tērz-bērg	Tonkin	tōn-kēn'
Malay	mā-lā'	Olympus	ō-līm' pus	Salvador	sāl-vā-dōr'	Toulon	tō' lon
Malta	māl' tā	Omaha	ō' ma-hā	Salzburg	sālts' bōrg	Toulouse	tō-lōz'
Manchuria	man-chō' ri-ā	Onega	on' e-gā	Samoa	sa-mō' ā	Tours	tōr
Mandalay	man' da-lā	Onida	ō-nī' dā	San Antonio	sān ān-tō' nē-ō	Trafalgar	tra-fal'-gar
Manila	mā-nē' lā	Ontario	on-tā' ri-ō	San Bernardino	sān bērn-nār-dē'-nō	Transvaal	trans-vāl'
Manitoba	man' i-tō-bā'	Oregon	or' e-gon	San Diego	sān dē-ā' gō	Trebizond	treb' i-zond
Manitou	man' i-tō	Orinoco	ō-ri-nō' kō	San Francisco	sān fran-sis' ko	Tripoli	trip' ō-li
Manzanillo	mān-thā-nēl' yō	Orleans	ōr' lē-anz (or-lā-ong', Fr.)	San Joaquin	sān hō-ā' kēn'	Tucson	tū-sōn'
Marmora	mār' mō-rā	Oshkosh	osh' kosh	San José	sān hō-sā'	Tulare	tō-lā're
Marquette	mār-kt'	Ottawa	ot' a-wā	San Juan	sān hō-ān' [sē]	Turkestan	tūr-kes-tān'
Martinique	mār-ti-nēk'	Ottumwa	o-tum' wā	San Luis Potosi	sān lō-ēs' pō-tō-	Upernavik	ō' per-nā-vik
Maskat	mas-kat'	Owyhee	ō-wī' hē	San Miguel	sān mē-gel'	Ural	ō' ral
Massachusetts	mas-a-chō's sets	Pacific	pā-sif' ik	San Salvador	sān sāl-vā-dōr'	Uruguay	ō-rō-gwī'
Matabeleland	mā-tā-bā' le-land	Paducah	pa-dū' kā	Santa Barbara	sān-tā bār' ba-rā	Utah	ū' tā
Matamoros	mat-a-mō' rōs	Palermo	pa-lēr' mō	Santa Cruz	sān' tā krōz	Utrecht	ū' trekt
Mauch Chunk	māk chungk	Palestine	pal' es-tin	Santa Fé	sān-tā fā'	Vaal	vāl
Maumee	mā-me'	Pará	pā-rā'	Santiago	sān-tō-ā' gō	Valdai	vāl' dī
Mauna Loa	mou' nā lō' ā	Paraguay	par-a-gwī'	Santo Domingo	sān'tō dō-mēn-gō	Valencia	va-len' shiā
Medina	me-dē' nā	Paris	par' is	Sarawak	sā-rā-wāk'	Valladolid	vāl-yā-dō-lēth
Mediterranean	med' i-te-rā' nē-an	Passaic	pa-sā' ik	Sardinia	sār-din' i-ā	Valparaiso	val-pa-rī' sō
Melbourne	mel' bērn	Passamaquoddy	pas' a-maquod' i	Sargasso	sār-gas' ō	Vancouver	van-kō' vēr
Mendocino	men-dō-sē' nō	Patagonia	pāt-ā-gō' nī-ā	Scandinavia	skan-di-nā' vi-ā	Van Diemens	van dē'menz
Mequinez	mek' i-nez	Pekin	pē-kin'	Shenectady	she-nek' ta-di	Venezuela	ven-e-zwē' lā
Mer de Glace	mār dē glās	Peling	pē-ling'	Scioto	sī-ō' tō	Venice	ven' is
Micronesia	mī-krō-ne' shiā	Penang	pe-nang'	Seattle	sē-at' l	Vera Cruz	vā' rā krōz
Milan	mi-lan' or mil'an	Pennsylvania	pen-sil-vā' ni-ā	Sebastopol	sē-bas' tō-pōl	Versailles	ver-sāy'
Milwaukee	mil-wā' kē	Pensacola	pen-sa-kō' lā	Sedan	se-dong'	Vesuvius	ve-sū' vi-us
Mindanao	mēn-dā-nā' ō	Peoria	pē-ō' ri-ā	Seine	sān	Victoria Nyanza	vik-tō' ri-ā nī-an'-za
Minneapolis	min-e-ap' ō-lis	Pernambuco	pēr-nām-bō' kō	Selvas	sel' vāz	Vienna	vi-en' ā
Minnehaha	min-e-hā' hā	Peru	pe-rō'	Senegal	sen-e-gāl'	Vincennes	vin-senz'
Minnesota	min-e-sō' tā	Philadelphia	fil-a-del' fi-ā	Seoul	sā-ōl'	Vladivostok	vlā-dē-vōs-tok'
Mississippi	mis-i-sip' i	Philæ	fī' lē	Shanghai	shang-hī'	Wabash	wā' bash
Missouri	mi-zō' ri	Philippine	fil' ip-in	Shenandoah	shen-an-dō' ā	Walla Walla	wōl' ā wōl' ā
Mobile	mō-bēl'	Phoenix	fē' nīks	Shoshone	shō-shō' nē	Wasatch	wā-sach'
Mohawk	mō' hāk	Pilsen	pīl' sen	Siam	sī am'	Wichita	wich' i-tā
Molukkas	mō-luk' āz	Pindus	pīn' dus	Siberia	sī-bē' ri-ā	Wilkesbarre	wilks' bar-e
Monongahela	mō-non-ga-hē' lā	Piræus	pē-rē' us	Sierra Nevada	sē-er' rā nā-vā'dā	Willamette	wīl' ā met
Montana	mon-tā' nā	Pisa	pē' zā	Siloam	sī-lō' am	Winnebago	wīn-e-bā' gō
Mont Blanc	mōng blong'	Popocatepetl	pō-pō-kā-tā-pet' l	Singapore	sing-ga-pōr'	Winnemucca	wīn-ē-muk' ā
Mont Ceniz	mōng se-nē'	Porto Rico	pōrt-tō rē' kō	Sioux City	sō sīt' i	Winona	wī-nō' nā
Montenegro	mōn-tā-nā' grō	Porto Said	pōrt sāl-ed'	Sitka	sīt' kā	Wisconsin	wis-kon' sin
Monterey	mōn-tā-rā'	Poughkeepsie	pō-kip' si	Skowhegan	skou-hē' gan	Woonsocket	wōn-sok' et
Montevideo	mon-te-vid' ē-ō	Prague	prāg	Smyrna	smēr' nā	Worcester	wūs' tēr
Montreal	mont-re-āl'	Pretoria	prē-tō' ri-ā	Sofia	sō-fē' ā	Wrangell	rang' gel
Mozambique	mō-zam-bēk'	Pribilof	prē-bē-lof'	Spezia	spet' sē-ā	Wyoming	wī-ō' ming
Muncie	mūn' si	Prussia	prush' ā	Spitzbergen	spits-bērgen	Yakima	yak' i-mā
Munich	mū' nīk	Pueblo	pweb' lō	Spokane	spō-kān'	Yakutsk	yā-kōtsk'
Muskegon	mus-kē' gon	Puget	pū' jet	Stockholm	stok' hōlm	Yangtze	yang' tze
Muskingum	mus-king' gum	Pyrenees	pīr' ē-nēz	Strassburg	strās' bōrg	Yazoo	yā' zō
Nagasaki	nā-gā-sā' kē	Quebec	kwe-bek'	Stratford-on-Avon	strat' fōrd-on-ā'-von	Yenisei	yen-ē-sā' ē
Nantes	nānts	Quito	kē' tō	Suez	sō' ez	Yezo	yez' o
Narragansett	nar-a-gan' set	Racine	ra-sēn'	Sulu	sō-lō'	Yokohama	yō kō-hā' mā
Nashua	nash' ū-ā	Rainier	rā' nēr	Sumatra	sō-mā' trā	Yosemite	yō-sem' i te
Natchez	nat' ehez	Rappahannock	rap-a-han' ok	Sumbawa	sōm-bā' wā	Ypsilanti	ip-si-lan' ti
Negro	nā' grō	Ratisbon	rat' is-bon	Susquehanna	sus-kwe-han' ā	Yucatan	yō-kā-tān'
Nepal	ne-pāl'	Reims	rēmz	Suwanee	sū-wā' nē	Yukon	yō' kon
Netherlands	neth' ēr-landz	Reykjavik	rīk' yā' vīk	Switzerland	swit' zēr-land	Zambezi	zam-bē' zē
Neuse	nūs	Rhine	rīn	Syria	sir' i-ā	Zante	zān' tē
Nevada	nā-vā' dā	Rhode Island	rōd ī' land	Tacoma	ta-kō' mā	Zanzibar	zan-zi-bār'
Newfoundland	nu-found' land	Rhodes	rōdz	Tahiti	tā-hē' tē	Zeeland	zē' land
New Guinea	nu gin' i	Rio de la Plata	rē' ō dā lā plā'tā	Taloe	tā-hō'	Zululand	zō' lū-land
New Hebrides	nū heb' ri-dēz	Rio Grande	rē' ō grān' dā	Taku	tāk' ō	Zuider Zee	zī'dēr zē
New Iberia	nū i-bē' ri-ā	Rio Janeiro	rē' ō zhā-nā' ro	Tallahassee	tal-a-has' ē		
New Orleans	nū ōr' le-anz						
Nez Percés	nā pēr-sā'						

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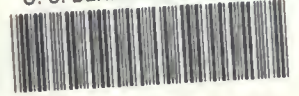
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